

**CHEMICAL STOCKPILE
DEMILITARIZATION PROGRAM**

Y 4. SE 2/1 A: 995/96/20

Chemical Stockpile Demilitarization... NG

BEFORE THE

MILITARY PROCUREMENT SUBCOMMITTEE

OF THE

COMMITTEE ON NATIONAL SECURITY
HOUSE OF REPRESENTATIVES

ONE HUNDRED FOURTH CONGRESS

FIRST SESSION

HEARING HELD
JULY 13, 1995



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CHEMICAL STOCKPILE DEMILITARIZATION PROGRAM

HOUSE OF REPRESENTATIVES,
COMMITTEE ON NATIONAL SECURITY,
MILITARY PROCUREMENT SUBCOMMITTEE,
Washington, DC, Thursday, July 13, 1995.

The subcommittee met, pursuant to call, at 9:30 a.m., in room 2118, Rayburn House Office Building, Hon. Duncan Hunter (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. DUNCAN HUNTER, A REPRESENTATIVE FROM CALIFORNIA, CHAIRMAN, MILITARY PROCUREMENT SUBCOMMITTEE

Mr. HUNTER. The subcommittee will come to order.

Today, the Military Procurement Subcommittee meets to review the U.S. chemical weapons chemical stockpile demilitarization program. The U.S. chemical weapons stockpile consists of approximately 30,000 tons of lethal chemical agents in a wide variety of conditions. The estimated cost of destroying the chemical weapons stockpile has grown from an estimated \$1.7 billion in 1985 to an estimated \$11.9 billion today, making the demilitarization program one of the larger major defense acquisition programs.

Demilitarization of the stockpile is simultaneously an issue of both national and local importance. It is a national issue from the standpoint of the growth and the estimated cost of the program, because every additional dollar that must be spent on demilitarization of the chemical weapons stockpile is a dollar that will not be available for modernization of the Armed Forces. It is a national issue with respect to the ability of the United States to implement the Chemical Weapons Convention and the potential impact of accomplishing the scheduled destruction of the U.S. chemicals weapons stockpile on the counterproliferation of weapons of mass destruction. And, it is a national issue from the standpoint of our ability to get rid of an obsolete stockpile of aging chemical agents and munitions that are potential long-term storage hazards and which are expensive to maintain.

At the same time, demilitarization of the chemical weapons stockpile is a local issue. It is a local issue in view of the potential long-term hazard to people in the local area created by continued storage of aging chemical agents and munitions. It is a local issue in view of the potential hazard created by demilitarization operations to the environment, the general public, and to the people who will perform the demilitarization itself. It is also a local issue because of the very real concerns expressed about the program by

people in the States and local communities involved in the program.

Because of the importance of the program to these communities, the subcommittee has invited the Members of the House who represent these local jurisdictions to participate with us in the hearing. We have several such Members with us today. Ladies and gentlemen, we welcome you and invite you to participate fully in this hearing.

For this hearing and for the chemical stockpile demilitarization program, the fundamental question for the Department of Defense and the Department of the Army is what is being done and what needs to be done to achieve solutions in the program and with respect to issues identified at both the national and local level—solutions that will ensure destruction of the stockpile in a manner that ensures maximum safety and, very importantly, is the most cost effective, especially in light of the increased costs that we are now projecting.

This hearing will be conducted as a series of four panels. The first three panels are designed to review the program and identify program issues from both a national and local perspective. In order that these issues can then be addressed in detail by the Members with the fourth panel, I will ask the members of the subcommittee and our guest Members to limit any questions to the first three panels to those required to clarify the testimony presented so we can get a picture of exactly where we stand right now.

The subcommittee will initially receive testimony from the Honorable Gil Decker, Assistant Secretary of the Army for Research, Development, and Acquisition; Maj. Gen. Bob Orton, Chemical Demilitarization Program Manager; and Dr. Ted Prociv, Deputy Assistant to the Secretary of Defense for Chemical/Biological Matters, who will provide an overview and a current status of the program. Gentlemen, thank you for being with us and being our first panel.

Mr. Dave Warren of the General Accounting Office will follow with a presentation on GAO studies and findings with respect to the overall program, including safety of the stockpile and an assessment of the chemical stockpile emergency preparedness program.

The third panel, consisting of representatives of chemical demilitarization citizens' advisory commissions and local emergency management agencies, will follow with a discussion of relevant program and site-specific issues from a local perspective.

In the fourth panel, Secretary Decker, Dr. Prociv, and Major General Orton will be joined by Dennis Kwiatkowski of the Federal Emergency Management Agency and Dr. Richard Magee of the National Research Council of the National Academy of Sciences to respond to Members from questions on issues that were raised during the preceding panels.

Before we begin with the first panel, I want to yield to the distinguished gentleman from Missouri, Mr. Skelton. Before doing that, let me mention that former Members Martin Lancaster and David McCurdy, two very distinguished former Members of the House Armed Services Committee, are with us today and, gentlemen, we are honored to have you with us. And we are also honored to have the ranking member of the full committee, Mr. Dellums, and the

distinguished chairman of the full committee, Mr. Spence, with us today.

With that, let me recognize my good friend, the distinguished gentleman from Missouri, Mr. Skelton.

OPENING STATEMENT OF DUNCAN HUNTER
CHAIRMAN, MILITARY PROCUREMENT SUBCOMMITTEE
HOUSE NATIONAL SECURITY COMMITTEE

HEARING ON U.S. CHEMICAL WEAPONS STOCKPILE
DEMILITARIZATION PROGRAM
JULY 13, 1995

TODAY, THE MILITARY PROCUREMENT SUBCOMMITTEE MEETS TO REVIEW THE U.S. CHEMICAL WEAPONS STOCKPILE DEMILITARIZATION PROGRAM. THE U.S. CHEMICAL WEAPONS STOCKPILE CONSISTS OF APPROXIMATELY 30,000 TONS OF LETHAL CHEMICAL AGENTS IN A WIDE VARIETY OF MUNITIONS. THE ESTIMATED COST OF DESTROYING THE CHEMICAL WEAPONS STOCKPILE HAS GROWN FROM AN ESTIMATED \$1.7 BILLION IN 1985 TO AN ESTIMATED \$11.9 BILLION TODAY, MAKING THE DEMILITARIZATION PROGRAM ONE OF THE LARGER MAJOR DEFENSE ACQUISITION PROGRAMS.

DEMILITARIZATION OF THE STOCKPILE IS, SIMULTANEOUSLY, AN ISSUE OF BOTH "NATIONAL" AND "LOCAL" IMPORTANCE. IT'S A "NATIONAL" ISSUE FROM THE STANDPOINT OF THE GROWTH IN THE ESTIMATED COST OF THE PROGRAM, FOR EVERY ADDITIONAL DOLLAR THAT MUST BE SPENT ON DEMILITARIZATION OF THE

CHEMICAL WEAPONS STOCKPILE IS A DOLLAR THAT WILL NOT BE AVAILABLE FOR MODERNIZATION OF THE ARMED FORCES. IT'S A "NATIONAL" ISSUE WITH RESPECT TO ABILITY OF THE UNITED STATES TO IMPLEMENT THE CHEMICAL WEAPONS CONVENTION AND THE POTENTIAL IMPACT OF ACCOMPLISHING THE SCHEDULED DESTRUCTION OF THE U.S. CHEMICAL WEAPONS STOCKPILE ON THE COUNTERPROLIFERATION OF WEAPONS OF MASS DESTRUCTION. AND, IT'S A NATIONAL ISSUE FROM THE STANDPOINT OF OUR ABILITY TO GET RID OF AN OBSOLETE STOCKPILE OF AGING CHEMICAL AGENTS AND MUNITIONS THAT ARE POTENTIAL LONG TERM STORAGE HAZARDS AND WHICH ARE EXPENSIVE TO MAINTAIN.

AT THE SAME TIME, DEMILITARIZATION OF THE CHEMICAL WEAPONS STOCKPILE IS A "LOCAL" ISSUE. IT'S A "LOCAL" ISSUE IN VIEW OF THE POTENTIAL LONG TERM HAZARD TO PEOPLE IN THE LOCAL AREA, CREATED BY CONTINUED STORAGE OF AGING CHEMICAL AGENTS AND MUNITIONS. IT'S A "LOCAL" ISSUE IN VIEW OF THE POTENTIAL HAZARD CREATED BY DEMILITARIZATION OPERATIONS TO THE ENVIRONMENT, THE

GENERAL PUBLIC, AND TO THE PEOPLE WHO WILL PERFORM THE DEMILITARIZATION. AND, IT'S A "LOCAL" ISSUE BECAUSE OF THE VERY REAL CONCERNS EXPRESSED ABOUT THE PROGRAM BY PEOPLE IN THE STATES AND LOCAL COMMUNITIES INVOLVED IN THE PROGRAM. BECAUSE OF THE IMPORTANCE OF THE PROGRAM TO THESE COMMUNITIES, THE SUBCOMMITTEE HAS INVITED THE MEMBERS OF HOUSE WHO REPRESENT THESE LOCAL JURISDICTIONS TO PARTICIPATE WITH US IN THE HEARING. LADIES AND GENTLEMEN, WE WELCOME YOU AND INVITE YOU PARTICIPATE FULLY IN THE HEARING.

FOR THIS HEARING AND FOR THE CHEMICAL STOCKPILE DEMILITARIZATION PROGRAM, THE FUNDAMENTAL QUESTION FOR THE DEPARTMENT OF DEFENSE AND THE DEPARTMENT OF THE ARMY IS WHAT IS BEING DONE, AND WHAT NEEDS TO BE DONE TO ACHIEVE SOLUTIONS TO CHEMICAL DEMILITARIZATION PROGRAM ISSUES IDENTIFIED AT BOTH THE "NATIONAL" AND THE "LOCAL" LEVEL - SOLUTIONS THAT WILL ENSURE DESTRUCTION OF THE STOCKPILE IN A MANNER THAT ENSURES "MAXIMUM SAFETY" AND IS THE MOST COST-EFFECTIVE.

THE HEARING WILL BE CONDUCTED AS A SERIES OF FOUR PANELS. THE FIRST THREE PANELS ARE DESIGNED TO REVIEW THE PROGRAM AND IDENTIFY PROGRAM ISSUES FROM BOTH A NATIONAL AND A LOCAL PERSPECTIVE. IN ORDER THAT THESE ISSUES CAN THEN BE ADDRESSED IN DETAIL BY THE MEMBERS WITH THE FOURTH PANEL, I WILL ASK THE MEMBERS OF SUBCOMMITTEE AND OUR GUEST MEMBERS TO LIMIT ANY QUESTIONS TO THE FIRST THREE PANELS TO THOSE REQUIRED TO CLARIFY THE TESTIMONY PRESENTED. THE SUBCOMMITTEE WILL INITIALLY RECEIVE TESTIMONY FROM THE HONORABLE GIL DECKER, ASSISTANT SECRETARY OF THE ARMY FOR RESEARCH, DEVELOPMENT AND ACQUISITION, MAJOR GENERAL BOB ORTON, CHEMICAL DEMILITARIZATION PROGRAM MANAGER, AND DR. TED PROCIV, DEPUTY ASSISTANT TO THE SECRETARY OF DEFENSE FOR CHEMICAL/BIOLOGICAL MATTERS, WHO WILL PROVIDE AN OVERVIEW AND CURRENT STATUS OF THE PROGRAM. MR. DAVE WARREN OF THE GENERAL ACCOUNTING OFFICE WILL FOLLOW WITH A PRESENTATION ON GAO STUDIES AND FINDINGS WITH RESPECT TO THE OVERALL PROGRAM, INCLUDING SAFETY OF THE

STOCKPILE AND AN ASSESSMENT OF THE CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM. THE THIRD PANEL, CONSISTING OF REPRESENTATIVES OF CHEMICAL DEMILITARIZATION CITIZENS' ADVISORY COMMISSIONS AND LOCAL EMERGENCY MANAGEMENT AGENCIES, WILL FOLLOW WITH A DISCUSSION OF RELEVANT PROGRAM AND SITE SPECIFIC ISSUES FROM A LOCAL PERSPECTIVE. IN THE FOURTH PANEL, SECRETARY DECKER, DR. PROCIV AND MAJOR GENERAL ORTON WILL BE JOINED BY DENNIS KWIATKOWSKI OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY AND DR. RICHARD MAGEE OF THE NATIONAL RESEARCH COUNCIL, NATIONAL ACADEMY OF SCIENCES TO RESPOND TO QUESTIONS FROM THE MEMBERS ON ISSUES THAT WERE RAISED DURING THE PRECEDING PANELS.

BEFORE WE BEGIN WITH THE FIRST PANEL, I WOULD FIRST YIELD TO THE RANKING MEMBER MR. SKELTON FOR ANY REMARKS HE WOULD MAKE; AND THEN, WITHOUT OBJECTION, WOULD BE HAPPY TO YIELD TO ANY OF OUR VISITING MEMBERS FOR ANY REMARKS THEY WOULD MAKE.

STATEMENT OF HON. IKE SKELTON, A REPRESENTATIVE FROM MISSOURI, RANKING MINORITY MEMBER, MILITARY PROCUREMENT SUBCOMMITTEE

Mr. SKELTON. Thank you very much, Mr. Chairman.

I join with you, Mr. Chairman, in welcoming our distinguished witnesses to our hearing and look forward to their perspectives and reasoned judgments as the subcommittee explores issues associated with the chemical stockpile demilitarization program.

During this congressional session, we have heard a lot about the increased cost of this program, a great deal, as a matter of fact. When we complete our task here today, I hope to understand more about what really drives these costs. I appreciate the witnesses for coming. We look forward to your testimony. We undoubtedly will have some very interesting questions from this subcommittee to our witnesses through the day.

Mr. Chairman, thank you very much.

Mr. HUNTER. I thank you, my colleague, from Missouri, and the ranking member has a statement he would like to make. Mr. Dellums you are recognized.

Mr. DELLUMS. Thank you.

Just very briefly, first I would like to congratulate you, Mr. Chairman and Mr. Skelton, for arranging for this hearing. I think you are attempting to address very vital, important, and significant issues.

As you know, over the last several months you and I have sat for a number of hours through a number of hearings and it is my tendency to be here with you throughout the hearing, and I just would like to indicate to you that I am chagrined at the fact that I do have a conflict this morning and my presence is required elsewhere and so momentarily I would have to withdraw. I will make every effort to try to come back after I have completed that engagement.

Mr. HUNTER. We thank you so much, and you have shown great endurance in hearings past and we appreciate it. We will get all the information to you, get you a test on this.

Mr. DELLUMS. Thank you. I will stipulate on that.

Mr. HUNTER. Thank you very much.

Mr. Chairman, do you have any statements you would like to make?

Mr. SPENCE. No.

Mr. HUNTER. Thank you.

Well, again welcome to our guests and we may have some other Members. Do any other Members, whether they are on the subcommittee or interested Members, wish to make an opening statement?

Mr. HANSEN. Mr. Chairman.

Mr. HUNTER. Mr. Hansen.

Mr. HANSEN. Let me thank you for inviting me to be part of the committee today. I think this is an extremely important question we have before us.

In the First Congressional District of Utah, we have Tooele Army Depot South, which has 43 percent of all the obsolete chemical weapons in the world, or what we have of the U.S. stockpile, anyway. And we now have the first baseline program incinerator facil-

ity that has just been completed. It will go hot this fall, I understand. We hope we can get rid of this stuff, something that many of us want to see occur.

However, I think you said it very well when you said how did this program mushroom from \$1.7 up to maybe \$12 billion in this particular time. I don't know if the Army can afford this, and I know today I hope we can explore the areas of why are we going to build eight more of these things and maybe why we ought to take some serious looks at some of the other alternatives, because this is a major, major outlay of money for the Army.

It is a great concern to those of us who live in areas that have this. I think, first and foremost, we will have to say what is best for the United States of America. I know the Governor of Utah is interested in it. I know Governors of other States are interested. I know it is a very sensitive issue to many of the Members in both the House and the Senate regarding what we are going to do with this. I guess we can all argue, as many people do, why did we build it in the first place? That is a moot point. It is there. We have got it. We have got leakers in Tooele, leakers upon leakers. You go out to the bunkers, and you see they put a leaking munition in a coffin. This stuff is extremely dangerous and the people of America should be concerned.

I always laugh when I think of a lady who called me at one time and said, "Congressman, you have got to do something with it. Don't leave it here. Don't move it and don't destroy it." Kind of a tough situation. How do you handle a deal like that?

Well, if the public wants to accept that nonsense type of a situation, that is up to them. But every politician in Utah has made a big deal out of the idea of just let it leak a little bit and the prevailing winds bring it right over the Salt Lake Provo Ogden area and we wipe out 90 percent of Utah. So it is a great concern.

I appreciate the members of this panel who I know are very concerned with the issue themselves, and I hope we can come up with something. A lot of people are talking about alternative methods. I hope that isn't a put off. No disrespect, but I know how many times we study and study and study, and nothing happens. I would still like to see that room in the Pentagon that has got all those studies that nothing occurred, just one study on another. Let's just not have a study on this thing. I hope there is some action that is taken today.

Thank you for allowing us to be with you today, Mr. Chairman.

Mr. HUNTER. I thank the gentleman for the expertise and the local interest that he brings on this issue, also. Mr. Browder is recognized.

Mr. BROWDER. Thank you, Mr. Chairman. Thank you for calling this hearing and for allowing us to participate in it.

The subject of today's hearing is something that I think will cause all of our eyes to glaze over during the next few hours, because we are going to talk about some arcane numbers and some things which seem to be just another government program. But I would like to put it in perspective for our Members and our participants here today.

Mr. Hansen and I have been very concerned about this because he has the first of these eight construction sites; I have the second

of the eight. And Mr. Hansen has very legitimate concerns. I have a different situation in that I have over 100,000 people in the immediate zone in the wind direction of any problem that may occur. And as we look through all these numbers and charts, folks, keep in mind that this is the same nerve gas that was used in the Tokyo subway incident. They say that one drop of nerve gas on the hand can kill you. The M55 rocket that is about as tall as I am, I understand, has about 5 to 10 gallons of that agent in it. At my site with 100,000 people sitting in the immediate impact area, we have 78,000 of those rockets stored. They are known as the bad characters. They are leakers. This is something that we have to face. These things have to be destroyed. They have to be done expeditiously in as economical a way as possible.

Public safety is the primary consideration. We are not talking about how to demilitarize or how to get rid of hundreds of thousands of tires or helmets. We are talking about nerve agent and other agents that are very dangerous, and a lot of it. This is a serious matter and I appreciate your leadership on this. Thank you.

Mr. HUNTER. Thank you, Mr. Browder. Thanks for your impetus and seeing to it that we have this hearing.

Mr. BUYER. Mr. Chairman?

Mr. HUNTER. Yes, Mr. Buyer.

Mr. BUYER. Thank you, Mr. Chairman. I thank my colleague, Ike Skeleton and you for calling this hearing.

I have Newport, ladies and gentlemen, in my congressional district, a bulk nerve agent storage facility. I think one of the only points that I would like to make as we move into the hearing process with regard to all of the efforts, whatever governmental agency we are talking about as we seek to balance the budget and contain costs, that in no way does it mean that we want to forget about promotion of public safety. And so as we look at the escalation of the cost of the programs, I think we have to remember that public safety is fact number one.

I think Mr. Hansen summed it up very well for those of us that have these type of storage facilities. People don't want to move it, don't want to touch it, just leave it alone and let it go away. Well, it will not go away. I don't have the same problems that Mr. Browder has. When you have the bulk of the nerve agent in bulk, when you talk about the alternatives, there are processes of neutralization. But then when you neutralize it, you end up with a heck of a lot of it and then what do you do with it? Do you burn it or do you bury it? You can do other things with it. But I think the public would be pretty excited with regard to alternative ways of destruction, especially the bulk agents.

I look forward to this hearing and compliment the Chairman.

Mr. HUNTER. I thank the gentleman.

Mr. Gilchrest, did you have a statement you wanted to make?

Mr. GILCREST. Just very quickly, Mr. Chairman. I do appreciate you holding this hearing and I appreciate the fact that you allowed me to come in here and say a few comments.

I have a constituent that will testify here during this hearing. I am not sure if I can stay that entire time. A young man—he will appreciate me calling him a young man—from the Eastern Shore of Maryland, John Nunn, who is a lawyer who has done a tremen-

dous amount of work for the people of Maryland in trying to find alternative methods to incineration.

The area where we store our agent and it is mustard agent, it is not contained in any munitions—it is just bulk stored, pure mustard agent in cylinders. We have a problem in that we have the Baltimore City metropolitan area; we have the Chesapeake Bay right there. We understand that there are some problems periodically with incineration. We prefer that incineration not take place. We don't want the stuff stored there forever.

We do want alternative technologies, and it is our understanding that there are some very likely alternatives for neutralization that can render this stuff pretty nontoxic where it can be stored and then taken to facilities for protection of the public.

So I look forward to the testimony here today, Mr. Chairman; look forward to John Nunn's testimony. I know there is a lot of studies at the Pentagon, as Mr. Hansen mentioned. And to a certain extent it is good to continue to study things because one of the things that made this country great and more sophisticated than basically any other country on the face of the earth is because we are always looking for new things. We don't just rest on the laurels of things that went in the past. We are looking for new technologies; we are trying to become more sophisticated.

And I think we are concerned about how we can deal with this menace of nerve agent and mustard gas and things like that, not only for this country but for the other countries around the world. So some of it is appropriate for incineration and I understand that.

At Aberdeen Proving Ground, there is 5 percent of the stock, a small amount. It does not have to be incinerated. Let's pursue the technology to neutralize this stuff and then we can share that technology not only with other places around this country but other places around the world.

The other comment is that we are the last on the list. I know Jim is already involved in this. A couple other people are one, two, three, four. We are last. So I think we have an opportunity to continue to pursue this alternative technology.

Thank you, Mr. Chairman.

Mr. HUNTER. I thank the gentleman for his comments.

I want to thank Mr. Myers, who also has a witness in his district, for meeting with us today. John, do you have any statement you would like to make?

Mr. MYERS. Well, thank you, Mr. Chairman. I thank you for having this meeting. It has been a real problem for a great many districts in the area, as you gentlemen know. I got rid of mine. I passed it on.

Mr. BUYER. He gave it to me.

Mr. MYERS. But I still have to live with it because I only live about 15 miles from the site in the prevailing winds area also. Anyway, I apologize for getting here late. I have been making my rounds this morning.

Mr. HUNTER. You have a few things to do. Thank you, John.

Mr. Taylor, do you have any statements you wish to make, or anybody else?

Mr. TAYLOR. No.

Mr. HUNTER. Anybody else on the committee?

Mr. SISISKY. I would like to hear the witnesses.

Mr. HUNTER. Mr. Sisisky desperately wants to hear from witnesses, so I guess we will go to them at this point. We will start with Dr. Theodore Prociv, and, Dr. Prociv, we will follow your testimony with Mr. Decker and then General Orton. Thank you.

STATEMENT OF THEODORE PROCIV, DEPUTY ASSISTANT TO THE SECRETARY OF DEFENSE FOR CHEMICAL/BIOLOGICAL MATTERS

Mr. PROCIV. Thank you, Mr. Chairman. I would like to read a short statement and submit the same statement for the record, if I can.

Mr. Chairman, members of the committee, and distinguished guests, thank you for this opportunity to discuss our Nation's and the Department of Defense's chemical demilitarization program. The Department appreciates the committee's continued interest and support in these areas.

Our national policy calls for the destruction of the U.S. chemical stockpile. Safe and successful completion of the program is a high priority for the Department of Defense. In this complex national program, the Congress and the Department of Defense share a common goal: the safe, expeditious and environmentally sound destruction of our stockpile of chemical weapons.

The role of the Office of the Secretary of Defense is to provide the policy for the program and to manage the chemical demilitarization program appropriation. It is called the chemical agents munitions destruction, defense—commonly known as the CAMD,D appropriation. The responsibility for oversight of this program has been delegated to the Assistant to the Secretary of Defense for Atomic Energy, Dr. Harold P. Smith, Jr., who has in turn delegated it to me, the Deputy Assistant for Chemical and Biological Matters.

The Department of Defense recognizes that the inherent complexity and large size of the chemical demilitarization program requires an intensive management approach. We are all committed to ensure safety, security, cost effectiveness, and the timely completion of the destruction effort. To this end, the Department of Defense has evaluated its current requirements and in December 1994 determined that the program warranted a designation as a major defense acquisition program, or an MDAP. This decision required changes in the management structure to align the program more with the current defense acquisition system process.

The step of making this program an MDAP will subject the chemical demil program to the same management scrutiny reserved for the Department's most complex acquisition programs. This will allow us to address head-on the issues of cost and schedule while maintaining a safe and environmentally sound program. Under the MDAP designation, OSD will provide oversight to the program through the Defense Acquisition Board, through what is commonly known as the DAB process. The DAB provides a mechanism for high level review of the program. Typically, the entire program is scrutinized for progress, cost effectiveness, technological improvement, and management controls—the issues that we concentrate on.

The DAB process has also established integrated product teams, or IPTs, to address various issues, such as environmental permitting, the chemical stockpile emergency preparedness program, expeditious contracting approaches, and cost-cutting measures.

I am pleased to have with me for this session Mr. Gil Decker, the Honorable Mr. Decker, the Army acquisition executive, and Maj. Gen. Robert Orton, the program manager for chemical demilitarization. It is a pleasure to work with these gentlemen. I am glad they are joining me before this committee.

In conclusion, the Secretary of Defense, using the team approach with the executive agent, the Secretary of the Army has taken concrete steps to improve the oversight and management of the chemical demilitarization program. Our efforts will continue on accomplishing whatever is necessary to reduce or contain overall costs while ensuring safety and environmental protection within the program. I will be followed by Mr. Decker.

Mr. HUNTER. Thank you, Doctor Prociv.

RECORD STATEMENT

STATEMENT BY

DR. THEODORE M. PROCIV

DEPUTY ASSISTANT TO THE SECRETARY OF DEFENSE

(ATOMIC ENERGY) (CHEMICAL/BIOLOGICAL MATTERS)

BEFORE

SUBCOMMITTEE ON PROCUREMENT

COMMITTEE ON NATIONAL SECURITY

HOUSE OF REPRESENTATIVES

JULY 13, 1995

NOT FOR PUBLICATION
UNTIL RELEASED BY THE
HOUSE NATIONAL SECURITY COMMITTEE

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

THANK YOU FOR THIS OPPORTUNITY TO DISCUSS OUR NATION'S AND THE DEPARTMENT OF DEFENSE'S CHEMICAL DEMILITARIZATION PROGRAM. THE DEPARTMENT APPRECIATES THE COMMITTEE'S CONTINUED INTEREST AND SUPPORT IN THESE AREAS.

OUR NATIONAL POLICY CALLS FOR THE DESTRUCTION OF THE UNITED STATES CHEMICAL STOCKPILE. SAFE AND SUCCESSFUL COMPLETION OF THE PROGRAM IS A HIGH PRIORITY OF THE DEPARTMENT OF DEFENSE. IN THIS COMPLEX NATIONAL PROGRAM, THE CONGRESS AND THE DEPARTMENT OF DEFENSE SHARE A COMMON GOAL: THE SAFE, EXPEDITIOUS, AND ENVIRONMENTALLY SOUND DESTRUCTION OF OUR STOCKPILE OF CHEMICAL WEAPONS.

THE ROLE OF THE OFFICE OF THE SECRETARY OF DEFENSE IS TO PROVIDE POLICY FOR THE PROGRAM AND TO MANAGE THE CHEMICAL DEMILITARIZATION PROGRAM APPROPRIATION (CHEMICAL AGENTS MUNITIONS DESTRUCTION, DEFENSE, COMMONLY KNOWN AS THE CAMD,D LINE). THE RESPONSIBILITY FOR OVERSIGHT OF THIS PROGRAM HAS BEEN DELEGATED TO THE ASSISTANT TO THE SECRETARY OF DEFENSE FOR ATOMIC ENERGY, DR. HAROLD P. SMITH JR., WHO HAS, IN TURN DELEGATED IT TO ME,

THE DEPUTY ASSISTANT FOR CHEMICAL AND BIOLOGICAL MATTERS.

THE DEPARTMENT OF DEFENSE RECOGNIZES THAT THE INHERENT COMPLEXITY AND LARGE SIZE OF THE CHEMICAL DEMILITARIZATION PROGRAM REQUIRES AN INTENSIVE MANAGEMENT APPROACH. WE ARE ALL COMMITTED TO INSURE SAFETY, SECURITY, COST EFFECTIVENESS, AND TIMELY COMPLETION OF THE DESTRUCTION EFFORT. TO THIS END THE DEPARTMENT OF DEFENSE EVALUATED ITS CURRENT REQUIREMENTS IN DECEMBER 1994, AND DETERMINED THAT THE PROGRAM WARRANTED DESIGNATION AS A MAJOR DEFENSE ACQUISITION PROGRAM (MDAP). THIS DECISION REQUIRED CHANGES IN THE MANAGEMENT STRUCTURE TO ALIGN THE PROGRAM MORE WITH THE CURRENT DEFENSE ACQUISITION SYSTEM PROCESS.

THE STEP OF MAKING THIS PROGRAM AN MDAP WILL SUBJECT THE CHEMICAL DEMIL PROGRAM TO THE SAME MANAGEMENT SCRUTINY RESERVED FOR THE DEPARTMENT'S MOST COMPLEX ACQUISITION PROGRAMS. THIS WILL ALLOW US TO ADDRESS HEAD-ON THE ISSUES OF COST AND SCHEDULE WHILE MAINTAINING A SAFE AND ENVIRONMENTALLY SOUND PROGRAM. UNDER THE MDAP DESIGNATION, OSD WILL PROVIDE OVERSIGHT TO THE PROGRAM THROUGH THE DEFENSE ACQUISITION BOARD (OR DAB) PROCESS. THE DAB PROVIDES A MECHANISM FOR HIGH LEVEL REVIEW OF THE

PROGRAM. TYPICALLY THE ENTIRE PROGRAM IS SCRUTINIZED FOR PROGRESS, COST EFFECTIVENESS, TECHNOLOGICAL IMPROVEMENT AND MANAGEMENT CONTROLS.

THE DAB PROCESS HAS ALSO ESTABLISHED INTEGRATED PRODUCT TEAMS (OR IPT'S) TO ADDRESS VARIOUS ISSUES, SUCH AS, ENVIRONMENTAL PERMITTING, THE CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM, EXPEDITIOUS CONTRACTING APPROACHES, AND COST CUTTING MEASURES.

I AM PLEASED TO HAVE WITH ME THIS FOR THIS SESSION, MR. GIL DECKER, THE ARMY ACQUISITION EXECUTIVE, AND MAJOR GENERAL ROBERT ORTON, THE PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION. IT IS A PLEASURE TO WORK WITH THESE GENTLEMEN AND I AM GLAD THEY HAVE JOINED ME BEFORE THIS COMMITTEE.

IN CONCLUSION, THE SECRETARY OF DEFENSE, USING A TEAM APPROACH WITH THE EXECUTIVE AGENT, THE SECRETARY OF THE ARMY, HAS TAKEN CONCRETE STEPS TO IMPROVE THE OVERSIGHT AND MANAGEMENT OF THE CHEMICAL DEMILITARIZATION PROGRAM. OUR EFFORTS WILL CONCENTRATE ON ACCOMPLISHING WHATEVER IS NECESSARY TO REDUCE OR CONTAIN OVERALL COSTS WHILE ENSURING SAFETY AND ENVIRONMENTAL PROTECTION.

Mr. HUNTER. Mr. Decker.

STATEMENT OF GILBERT F. DECKER, ASSISTANT SECRETARY OF THE ARMY FOR RESEARCH, DEVELOPMENT AND ACQUISITION

Mr. DECKER. Thank you, Mr. Chairman and other distinguished committee members. I, too, appreciate the opportunity to appear before the committee and discuss the chemical demilitarization program for which the Army is executive agent.

In December 1994, the chemical demilitarization program was designated by the Office of the Secretary of Defense as an Acquisition Category Program ID, euphemistically known as ACAT ID program. By law and by regulation, this designation transferred management execution of the program to an Assistant Secretary of the Army for Research, Development, and Acquisition, which is my office. I also serve as the Army acquisition executive. I look forward to working with this committee on this and other significant issues of national security.

As you have heard, appearing with me today is Maj. Gen. Robert Orton, the recently appointed program manager of the chemical demilitarization program. General Orton and I have prepared and submitted in advance a joint statement and you are certainly welcome to have it entered in the record today.

Mr. HUNTER. Without objection, all statements will be entered in the record.

Mr. DECKER. The Army and I, as an agent of the Army, view the demilitarization of the U.S. lethal chemical weapons as a critical, national security mission which we must accomplish. The Secretary of the Army and the Chief of Staff personally assigned top talent in choosing Major General Orton. I will leave it up to you to decide whether I am top talent or not.

Chemical demilitarization truly is viewed by those gentlemen as a national mission and it must be accomplished as any other mission in the Army is handled. As with any other national security mission undertaken by the Defense Department and by the Department of the Army, we are dedicated to mission accomplishment. We take an oath in our offices to uphold the Constitution and provide national security for all our citizens. We certainly take this oath very seriously in this program.

To be successful, the chemical demilitarization mission needs the support of Congress and the American people. It is both a national and local mission which has been pointed out by you gentlemen, and warrants the highest priority and collective efforts to get the job done.

The chemical stockpile is deteriorating and will continue to deteriorate as it gets older. This represents an ever increasing safety threat to the communities and the environment where the stockpile is stored. To be as clear as we can, the risk created by the deteriorating stockpile must be assessed site-by-site because of the different mix and quantities at each site and different kinds of weapons, and different mixes of weapons pose different deterioration rates. Having then said that, however, I would like to use this chart to point out the generics.

There are reams of technical data on our site-specific analyses to support these conclusions. This chart shows risk on the vertical axis and time on the horizontal axis. To a first approximation, cumulative risk is along the horizontal line and it actually can increase with time. We show it remaining constant at a fairly high level. I will define cumulative risk for you in one second.

Risk with on-site disposal—under the current baseline program, as long as the safety standards and things are met by the rules we are following until we are finally 100 percent completed, the chart shows risk decreasing with time. Cumulative risk can be defined over the period of time that you are analyzing as the probability that at least one serious incident will occur, and we have fairly detailed definitions of what serious incidents are.

And so we don't say that a ticking bomb is going to go off today, July 13. What we do say as we look out and we use a period out to about 20 years on our detailed analyses that over whatever period of time you are maintaining the weapons without destroying them, the risk of a single—or more than one single incident will occur does increase with time. So we think it is urgent to get on with the mission so long as we do not mitigate our safety and public security standards.

In February 1994, the National Research Council report "Recommendations for the Disposal of Chemical Agents and Munitions" stated that continued storage of the stockpile and disposal program delays pose greater risk than proceeding with the program. Our work today at site-specific analyses validates this finding. We believe we are starting down the curve reducing risk to the Nation, certainly at those sites where we are engaged in active operations.

I want to firmly pledge to you as long as I am in this office that the Army's first, foremost priority in this program is public safety: safe storage and disposal of the stockpile, safety of the workers and safety of the citizens living in and around the chemical storage and disposal facilities. We will never knowingly cut corners on safety, whatever the cost.

To date, reverse assembly and incineration, our baseline program, is the only full scale demonstrated process that meets the safety standards that have been established and will safely dispose of the fully loaded, complete chemical munition: chemical agent, explosives, metal parts, and associated dunnage. The conclusion of NRC's evaluation is that the baseline incineration technology is a safe and effective process. Recognizing that we should not stay static—and I certainly agree with the comments I heard earlier—we should actively and continually pursue alternatives while we are proceeding on the baseline program parallel.

We are currently and fairly aggressively pursuing research and development on two alternative technologies, neutralization and neutralization followed by biodegradation. This is a real and honest effort to establish the viability of these alternative technologies, which should they prove successful as we move along, will clearly be effective at our bulk-only sites, perhaps at other sites. We are focused on the bulk-only sites. For example, Aberdeen Proving Grounds in Maryland and Newport Chemical Activity in Indiana.

In a cooperative effort, we continue to monitor the maturity of breakthrough of other alternative technologies, and later in the dis-

cussion you will hear about an approach we are trying to take to survey and bring in proposals from industry to see if they have any bright ideas in addition to those we are pursuing in-house.

I recently visited and did some detailed briefings and walk-throughs at both the Tooele chemical disposal facilities in Utah and at Johnston Island, the JACAD (Johnston Atoll Chemical Agent Disposal) system. I genuinely believe, and I am pleased that I can safely report to you, that the Johnston Island facility is now demonstrating the through-put capacity we anticipated at the beginning, albeit a few years late. I would like to remind you that is serial No. 1 and most of us don't like to buy serial one as a car. However, I think we now have it up to serial five standards maybe.

The incidents that have occurred at Johnston you will hear more about in detail later, but the bottom line is, to date, we have completed the 105 millimeter destruction. We have completed all M55 rocket destructions. There are 36 of those rockets being held out purposely that we found were leakers. They are to be analyzed to get a further handle on the deterioration of the M55 rocket. And they will too be destroyed.

But for all practical purposes, we can say that the artillery rounds and the rockets demilitarization mission has been completed at Johnston Island and to date there have been no serious injuries or fatalities. I can assure you the Army as an organization and I personally are committed to accomplishing this mission. To achieve these objectives we hope we can have a partnership without abrogating our individual responsibilities with the Congress, the various Federal, State and local government agencies, and local citizens. I thank you for your support and I look forward to answering your questions.

Mr. HUNTER. Mr. Decker, thank you.

[The prepared statements of Mr. Decker and Major General Orton follow:]

RECORD VERSION

STATEMENT BY

THE HONORABLE GILBERT F. DECKER
ASSISTANT SECRETARY OF THE ARMY FOR
RESEARCH DEVELOPMENT AND ACQUISITION
AND
MAJOR GENERAL ROBERT D. ORTON
PROGRAM MANAGER
CHEMICAL DEMILITARIZATION PROGRAM

BEFORE THE
SUBCOMMITTEE ON MILITARY PROCUREMENT
COMMITTEE ON NATIONAL SECURITY
UNITED STATES HOUSE OF REPRESENTATIVES
FIRST SESSION, 104TH CONGRESS
CHEMICAL DEMILITARIZATION PROGRAM

July 13, 1995

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BY THE HOUSE
NATIONAL SECURITY
COMMITTEE

Mr. Chairman and members of the Committee, thank your for inviting us to appear before this Committee to discuss the Defense Department's Chemical Demilitarization Program. We welcome this opportunity to provide you updated information on the status of the nation's critical mission of demilitarizing the United States (U.S.) lethal chemical weapons and agents under the Chemical Stockpile Disposal Program; the Non-Stockpile Chemical Materiel (NSCM) Program; and the Chemical Stockpile Emergency Preparedness Program (CSEPP).

In December 1994, the Chemical Demilitarization Program was designated by the Office of the Secretary of Defense as an Acquisition Category Program ID (ACAT ID). This designation transferred management execution of the program from the Assistant Secretary of the Army (Installations, Logistics, and Environment) to the Assistant Secretary of the Army (Research, Development and Acquisition) (ASA(RDA)). This program now becomes one of ASA(RDA)'s highest priorities. This shift in oversight was brought about to achieve a more disciplined approach to program management; to implement cost control procedures and policies to minimize future cost growth and strengthen the process; and to ensure that the right skills and adequate personnel are available for effective program execution. Major General Robert D. Orton, the newly assigned Program Manager for the Chemical Demilitarization Program, now reports directly to the Army Acquisition Executive (who is the ASA(RDA)). You can be assured that the Army, as an organization, its entire military and civilian leadership, and the AAE, as the Army responsible official, all clearly view this effort as a critical national mission. It is just as much a part of National Security as any other mission given to the Army, if not more so. We are committed to complete mission accomplishment.

This year, 1995, marks the tenth anniversary since the enactment of Public Law 99-145 (50 U.S. Code Section 1521) which terminated the M55 rocket disposal program and established the Chemical Stockpile Disposal Program (CSDP). The scope and complexity of the program has evolved significantly as the Army faced the challenges of developing and improving technology, from its pilot plant facility in Tooele, Utah--the Chemical Agent Munitions Disposal System (CAMDS)--to the first prototype, fully-integrated disposal plant at the Johnston Atoll Chemical Agent Disposal System (JACADS) in the Pacific. That process has proven to be successful in meeting or exceeding our safety and environmental expectations, although the throughput objectives and goals established for JACADS were not met. The operational experience gained at JACADS, the world's only operational, integrated chemical weapons (CW) disposal facility, has proven invaluable. Many "lessons learned" have emerged from this pioneering disposal plant, which will be used to enhance the

environmental compliance, safety and operational efficiency of the continental U.S. (CONUS) destruction plants.

This year, 1995, will continue to be a period of major transitions for the CSDP and the other chemical disposal and remediation efforts managed by the Program Manager, Chemical Demilitarization (PMCD). JACADS successfully completed the demilitarization of the stockpile of M55 nerve agent filled rockets and is beginning preparation for the next campaign of destroying nerve agent GB bombs, scheduled to begin in September 1995. We have carefully documented, analyzed and learned from the minor incidents that have occurred. We have not and will not compromise safety in any form in our ongoing mission. The first CONUS chemical disposal facility, located at the Tooele Army Depot, Utah, is in its final stages of a rigorous prove-out phase in preparation for the start of agent destruction operations in November 1995. The Army began laboratory-bench scale investigations into the alternative methods of destruction of bulk nerve agent VX and mustard agent using neutralization processes at the Edgewood Research, Development, and Engineering Center (ERDEC) in Edgewood, Maryland, and at the Chemical Agent Munitions Disposal System (CAMDS) at Tooele, Utah. Preparations are ongoing for awarding a contract for construction of the second CONUS chemical demilitarization facility, the Anniston Chemical Agent Disposal Facility (ANCDF). Contract award is pending receipt of the necessary environmental permits. In June of this year, a contract was awarded for the development and fielding of a mobile destruction system for recovered chemical warfare materiel at the small burial sites. The Army will continue to support the Department of Defense (DoD) in chemical weapons (CW) disarmament and technical assistance to the CW destruction program in the Russian Federation. Comprehensive plans and programs are in place to baseline the CSDP, NSCM Program, and the CSEPP, which will culminate in an independent cost estimate by the U.S. Army Cost and Economic Analysis Center and the DoD Cost Analysis Improvement Group.

However, there are several challenges which lay ahead in accomplishing this critical national mission. Changing community perspective and public opinion, in the U.S. as well as Russia, add an unknown dimension to the implementation of the various programs. Emerging environmental requirements place an unknown risk on the program as the new directives go through their evolutionary stages. Additionally, there is the ever-increasing complexity of coordination efforts among the many regulatory, oversight, administrative, and operational agencies, who have primacy over various project activities at the national, state, and local levels. We can only accomplish this critical mission through a cohesive team effort, a partnership, with the Congress, the various

federal, state and local Government agencies and local citizens of the communities surrounding the stockpile storage sites.

EVOLUTION AND STATUS OF THE CHEMICAL STOCKPILE DISPOSAL PROGRAM (CSDP)

The CSDP traces its lineage to the pioneering disposal and technology development programs at Rocky Mountain Arsenal, Colorado and the Chemical Agent Munitions Disposal System at Tooele Utah in the mid-1970s. The Army was formally assigned responsibility for the nation's CW retaliatory stockpile in 1981 when it was designated as the DoD Single Manager for Ammunition, including the aging CW stockpile. As the M55 rocket was an obsolete weapon system which posed the greatest potential risk for safety and environmental hazards, plans were initiated at that time for the M55 Rocket Disposal Program. Concurrent with the initial production of binary weapons, the M55 Rocket Disposal Program was subsumed by the CSDP when Congress authorized destruction of the entire U.S. unitary CW stockpile in 1985 (Public Law 99-145). The decision to modernize the obsolete U.S. retaliatory-only stockpile is cited as a key factor which facilitated the Bilateral Destruction Agreement (signed in June 1990 between the U.S. and the former Soviet Union). The Bilateral Agreement also set the stage for progress in the multilateral negotiations.

The current program structure was defined in the 1980's. The Army, after evaluating its experiences neutralizing GB nerve agent and incinerating mustard at Rocky Mountain, performed additional pilot scale testing of these two technologies. Based upon the results of this testing, the Army selected direct incineration as the technology of choice for disposing of the chemical agents, for treating of agent contaminated metal parts such as the munition bodies themselves, and for disposing of energetic or explosive materiel. This decision was made in 1982. Subsequently, the Army asked the National Academy of Sciences to evaluate the technologies; and in 1984, the National Academy of Sciences endorsed the Army's approach.

The next step in defining the program was to decide how best to carry out the destruction. Several options were considered, to include on-site disposal at each of the eight storage sites (Tooele, Utah; Anniston, Alabama; Umatilla, Oregon; Pine Bluff, Arkansas; Pueblo, Colorado; Blue-Grass, Kentucky; Aberdeen, Maryland; and Newport, Indiana); shipment to a national site (Tooele, Utah) for disposal; shipment to two regional sites (Tooele, Utah and Anniston, Alabama) for disposal or continued storage. The agreed-upon method for selecting which option to pursue was to recommend the option that resulted in the lowest cumulative risk to the public. It was also decided that if two

options could not be separated by cumulative risk, the ability to mitigate risk would be the primary tiebreaker.

A comprehensive, site-specific risk assessment was performed. This assessment, which was the cornerstone of the Army's 1988 Final Programmatic Environmental Impact Statement concluded that continued storage posed the greatest cumulative risk to the public. The risk assessment also demonstrated that shipment to a national site posed a statistically-significant greater risk to the public than either the regional or on-site disposal options. Emergency response issues supported the Army's decision to select the on-site disposal process utilizing baseline incineration as the program configuration.

A comprehensive implementation plan was submitted to Congress in March 1988, which delineated plans, consistent with Public Law 99-145, to: (1) destroy the U.S. stockpile of lethal chemical agents and munitions by 1994; (2) provide maximum protection for the environment, the workers, and the public; (3) dismantle the disposal facilities when disposal operations were complete; (4) establish a management organization headed by a general officer to conduct the disposal program; and (5) fund the program in a separate DoD account.

The initial plan and mandated destruction completion date have been amended several times since the passage of Public Law 99-145, as a result of better definition of the program scope, recognition of the complexity of the task given the rapidly changing environmental and safety compliance requirements, and heightened public concerns with hazardous waste management and disposal in general. The National Defense Authorization Act for Fiscal Year 1993 (Section 171, Public Law 102-484) extended the completion date to December 2004 in recognition of these changes.

JOHNSTON ATOLL CHEMICAL AGENT DISPOSAL SYSTEM (JACADS)

Johnston Atoll is located nearly 800 miles southwest of Hawaii and is the site of the chemical stocks that were originally stored in Okinawa and Germany (6.6% of U.S. total). Public Law 100-456 required an operational verification test (OVT) be conducted to verify that the JACADS disposal process could safely destroy chemical munitions and agents while meeting all federal safety and environmental regulations. The OVT program, which commenced in June 1990 and completed in March 1993, included nerve agent-filled GB rockets; nerve agent-filled VX rockets; mustard-filled ton containers; and mustard-filled artillery projectiles. The MITRE Corporation (a not-for-profit corporation) was the independent evaluator for the OVT Program. MITRE concluded that the OVT demonstrated that the baseline process is a safe and environmentally-responsible technological configuration for

disposal of the stockpile. While the throughput rates achieved were lower than the established goals, the performance was within the range of startup performance for similar industrial pioneer processing plants. The OVT experience was also evaluated by the National Research Council (NRC), the executive agency for the National Academy of Sciences. Based upon their review, the NRC endorsed the baseline system for the disposal of the chemical stockpile. In August 1993, the Secretary of Defense provided to Congress certification of the successful completion of OVT at JACADS.

We should note that a formal lessons-learned program is in place to ensure that recommended changes to JACADS are incorporated into the design and operational practices of the Tooele and remaining follow-on facilities. The lessons-learned program is critical in ensuring that the learning curves experienced by future sites will be significantly reduced from that of the prototype facility at Johnston Island.

Following the OVT program, the JACADS completed the destruction of 105-mm mustard projectiles. The facility was then decontaminated and the GB-filled ton containers stored on Johnston Island were destroyed. The facility was then reconfigured to process the remaining stockpile of GB-filled M55 rockets stored at the atoll. This effort, started in January 1994, was completed this past week. Johnston Atoll stored over 72,000 M55 nerve agent rockets.

JACADS has experienced two detections of agent outside of the facility since January 1994. While neither of these events posed a health threat to workers or to the island population, they serve as an effective reminder of the care that must be taken when working with chemical agents. The first event occurred in March 1994. A trace quantity of nerve agent GB was released during maintenance on the liquid incinerator (LIC) (which was not operating at the time of the incident). This event occurred due to an inadequate purge of the agent feed line. Equipment and procedural modifications were made to preclude a reoccurrence. In addition, a major change to the building ventilation system was made to ensure that air from the LIC room is always taken to the carbon filtration system. In March 1995, a perimeter monitor located approximately 100 yards from the building ventilation filter system detected low levels of nerve agent GB. The preliminary investigation into the potential source for this reading traced the problem back to the ventilation filters that treat the air from the disassembly areas of the facility. A detailed review indicated that the filter gaskets (which are used to achieve a seal on the doors to the filter units) were no longer maintaining a seal and were allowing trace quantities of agent to escape. The ventilation doors were sealed with plastic, and temporary airlocks were erected around the doors to ensure that

agent is not released to the environment. An evaluation is underway to examine alternative gasketing materials for use in sealing the filter doors. During five years of operations, there has been one minor exposure to mustard agent, which occurred during toxic maintenance cleanup in March 1993. This incident occurred as the result of noncompliance with the established waste handling procedures. Corrective actions have been incorporated into our lessons-learned program regarding bagging/containerizing of agent contaminated waste, protective clothing requirements, and waste handling procedures.

JACADS has also been challenged by several other unusual occurrences within the last eighteen months. For instance, the M55 rocket campaign was interrupted when the entire population of Johnston Atoll was evacuated for "Hurricane John," which struck the atoll on August 25, 1994. Although the facility only sustained minor damage, the atoll infrastructure was severely damaged. JACADS operations were suspended for 38 days to repair the atoll support facilities.

On November 19, 1994, a drained GB M55 rocket exploded in one of the two Explosive Containment Rooms (ECR) of the plant. The system worked as it was designed. There were no personnel injuries and no agent was released to the environment. However, equipment in the ECR was severely damaged. The plant continued to operate at a reduced capacity while the damaged ECR was being repaired. The repaired ECR was placed back on-line March 2, 1995.

Since the start of agent operations in June 1990, over 1,100,000 pounds of agent (GB, VX, and HD) stored in rockets, ton containers, and projectiles have been incinerated. The next scheduled campaign is the disposal of GB-filled bombs, anticipated to begin in September 1995.

Two major process sub-systems were upgraded and demonstrated to Environmental Protection Agency (EPA) representatives during 1994. A trial burn for the dunnage incinerator was completed on December 8, 1994. A destruction and removal efficiency (DRE) exceeding 99.9999% was achieved. Also, the brine reduction system was subjected to a material and energy balance test. This test was successfully completed December 11, 1994. It should be noted that all of the JACADS incinerator systems have successfully completed the trial burns required under the Resource Conservation and Recovery Act (RCRA).

The current JACADS RCRA permit expires August 31, 1995. A renewal permit application was submitted to the EPA in February 1995. To prevent a possible disruption of operations, a Temporary Authorization Request (TAR) was approved by EPA on June 29, 1995. This document allows the Army to operate JACADS for up to 180 days

while EPA continues to process the renewal permit application and to allow the EPA Environmental Appeals Board to review an appeal filed June 2, 1995, by the Chemical Weapons Working Group, the Pacific Asian Council of Indigenous Peoples, and the Institute for the Advancement of Hawaiian Affairs. The groups are appealing an earlier EPA decision to modify the current permit for JACADS, which allowed the facility to continue to incinerate chemical wastes until the EPA acts on the Army's request for the renewal permit.

**TOOELE CHEMICAL AGENT DISPOSAL FACILITY
TOOELE ARMY DEPOT, UTAH**

Construction of the first U.S. chemical disposal facility, Tooele Chemical Agent Disposal Facility (TOCDF), was completed in July 1993. Tooele Army Depot stores more chemical munitions and agent than any of the other storage sites (42% of the chemical stockpile) and has the greatest mix of munition types. TOCDF has been going through its systemization phase since August 26, 1994. Start of toxic operations is scheduled for November 1995 versus our earlier date of March 1995. This delay in the start of operations is associated with the time required by the state of Utah to respond to the necessary RCRA permit modifications resulting from our JACADS experience, as well as other facility improvements deemed necessary before plant start-up. The systemization schedule was adjusted to accommodate the longer period by initiating certain testing activities which otherwise would have been conducted in the operations phase of the project.

EPA and State mandated trial burns using surrogate materials in place of chemical agents to demonstrate the safety, efficiency, and environmental compliance of the plant's incinerators were started in late June 1995. A Toxic Substance Control Act (TSCA) Trial Burn, which demonstrates the destruction and removal efficiency (DRE) of Polychlorinated Biphenyls (PCBs) from M55 rocket shipping tubes, is scheduled to be conducted in September 1995. The DRE requirement for both the surrogate and TSCA trial burns is 99.9999%.

As recommended by the NRC, a Quantitative Risk Assessment (QRA) associated with storage, handling, and disposal operations at TOCDF was commissioned early in FY 1994. Existing directives and data obtained from the QRA are coordinated through a comprehensive Risk Management Plan to establish and maintain a safe facility. The plan includes consideration of four functions: management of change, performance evaluation, incident investigation, and emergency preparedness. The QRA Risk Management Plan, supporting the first two operational campaigns at TOCDF (rockets and bulk agent disposal) will be completed by September 1995. The Risk Management Plan for the follow-on campaigns will be completed by December 1995.

Reconfiguration activities, the process of separating propellant from agent-filled 105mm projectiles and 4.2 inch mortars, are approximately 60% complete. This work is independent of demilitarization technology and will enhance safe storage of these munitions pending future disposal operations. Reconfiguration will also take place at Anniston, Alabama, and Pueblo, Colorado.

**ANNISTON CHEMICAL AGENT DISPOSAL FACILITY
ANNISTON ARMY DEPOT, ALABAMA**

Anniston Chemical Agent Disposal Facility (ANCDF) will be the second full-scale chemical demilitarization facility to be built in CONUS. Award of the Systems Contract is expected to occur the first or second quarter of Fiscal Year 1996, depending on the status of permitting action. Congressional direction prohibited obligation of Military Construction, Army (MCA) funds for this facility until three requirements were fulfilled by the Army. First, Congressional review of the Army's Alternative Technology Report was to be completed. The report, which investigated potential alternatives to the Army's baseline incineration process was submitted to Congress April 12, 1994. Second, Congress required that JACADS operate successfully for a period of six months, and meet all environmental and safety standards; and third, the Secretary of the Army will schedule the award of a construction contract for a chemical disposal facility at another non-low-volume site within the same 12-month period in which Anniston is awarded. The Army concluded that the JACADS operational requirement was fulfilled on February 20, 1995; a record of certification is being prepared for staffing prior to forwarding to the Secretary of Defense for approval. On approval, this certification will be provided to Congress. The Umatilla and Pine Bluff facilities (non-low-volume sites) are scheduled for award in May and June 1996, respectively.

Award of the contract for the construction and operation of this facility was delayed initially by the Alabama Department of Environmental Management (ADEM) by withholding issuance of draft RCRA and Clean Air Act (CAA) permits from public review and comment until Congress had an opportunity to review the National Research Council (NRC) Alternative Technologies Study and the Army's Alternative Technology Report. ADEM then required the Army to update its permit applications to incorporate changes resulting from the Alternative Technology Report. Later, ADEM's promulgation of EPA's draft Health Risk Assessment (HRA) requirements further delayed the review of the Army's already provided data which supported the permit applications. EPA's draft HRA guidelines were first published in May 1994; however, since that date, the draft guidelines have experienced numerous revisions and clarifications. The Army completed an HRA protocol and conducted a screening HRA in January 1995 and February 1995, respectively. ADEM accepted the

Army's updated permit applications in February 1995 and expects to issue a draft permit for public comment in August 1995.

UMATILLA AND PINE BLUFF CHEMICAL AGENT DISPOSAL FACILITIES

Umatilla and Pine Bluff Chemical Agent Disposal Facilities are scheduled for award in May and June 1996, respectively. Request for Proposals (RFPs) were issued in July 1994 for both plants. The Umatilla RFP will close on August 28, 1995; the Pine Bluff RFP will close November 27, 1995. The RCRA and CAA permit applications were updated to incorporate the Anniston's permit application experience, where applicable. Updated applications for the Umatilla disposal facility were submitted to the state of Oregon in March 1995, and to Arkansas for the Pine Bluff facility in June 1995.

PUEBLO AND BLUE-GRASS CHEMICAL AGENT DISPOSAL FACILITIES

Pueblo and Blue-Grass Chemical Agent Disposal Facilities are scheduled for award in April 1997 and January 1998, respectively. RCRA and CAA permit applications for these sites are presently being finalized for submission in September 1995. Design packages for these sites will be completed in 1996 to support the RFP releases later that year. Also, during 1996, long-lead equipment purchases will be initiated for Pueblo.

ALTERNATIVE TECHNOLOGIES PROGRAM

In November 1991, the Army commissioned the NRC to study alternative technologies to the baseline incineration system for use in the destruction of chemical agents and munitions. The NRC Committee on Alternative Chemical Demilitarization Technologies completed their study and provided their report, in June 1993, to the NRC's Stockpile Disposal Program (Oversight Committee). In consonance with Congressional direction, this committee provides technical oversight to the Chemical Stockpile Disposal Program. The Committee on Alternative Chemical Demilitarization Technologies (Alternative Technologies Committee) June 1993 report, entitled "Alternative Technologies for the Destruction of Chemical Agents and Munitions," made no recommendations, but rather contained an assessment of the maturity of various technologies as well as their applicability to the Chemical Demilitarization Program. The Oversight Committee reviewed the Alternative Technologies Committee's 1993 report and provided a report to the Army and Congress, summarizing their conclusions and recommendations regarding alternative technologies as well as an assessment of the current baseline program.

The Oversight Committee's report, "Recommendations for the Disposal of Chemical Agents and Munitions," endorsed the baseline

incineration system as a safe and effective process for destroying the stockpile. The central theme of the report revolved around the concept that decisions must be made on the basis of total risk (i.e., storage risk, plus handling risk, plus disposal risk) on a site-by-site basis. The Army endorses that approach.

The NRC report contained a series of recommendations not only focused on alternative agent destruction technologies but also addressed many issues surrounding the demilitarization program. A summary of the NRC findings and recommendations follow:

The baseline process, as currently constituted, is a safe and effective system for destroying the stockpile;

- updated risk analyses using current methodologies and the latest data should be accomplished for each site;
- the Army should institute a program to further evaluate the safety of the M55 rockets in terms of long-term storage, as well as develop additional information regarding potential pressurization of mustard-containing munitions;
- increased public outreach programs should be developed and implemented by the Army;
- consideration should be given to incorporation of charcoal filter systems to the existing pollution abatement system on a site-by-site basis; and
- separation of the individual components, i.e., agent, energetic and metal parts, should continue to be utilized in the Chemical Demilitarization Program.

Regarding alternative technologies, the report recommended that the Army accelerate research and development of alternative technologies in parallel with the on-going program. Four basic alternative technologies were recommended by the NRC:

- 1) neutralization plus incineration;
- 2) neutralization plus wet air oxidation plus biological treatment;
- 3) neutralization plus super-critical water oxidation; and
- 4) neutralization plus biological treatment.

Finally, and importantly, the NRC concluded that the baseline program should proceed without deliberate delay. The committee does not endorse programs that would increase risk. The committee further suggested that any reduction in disposal risk afforded by alternative technology, due to time required to develop and prove out the technology, will be more than offset by the larger cumulative risk from extended storage.

The Army evaluated the recommendations of the NRC report and considered comments provided by the Citizens Advisory Commissions. In accordance with Public Law 102-484 the Army's report, addressing the alternative technologies and their possible use in the demilitarization program, was provided to the Congress on April 12, 1994. The Army's report endorses the concept of additional risk assessments; increased evaluation of the storage safety primarily centered around M55 rockets; an increased public outreach program; and evaluation of applying carbon filters to the discharge coming from the baseline system incinerators. Modeling and simulation will be utilized to better characterize how the carbon filtration system will function under both normal and off-normal conditions. The results from this modeling work will then be inserted into the Quantitative and Health Risk Assessments to determine if the filters actually provide a measurable decrease in risks to the worker or the public.

The Army's Alternative Technology Report to Congress recommended a two-technology based Research, Development, Test, and Evaluation (RDT&E) program to investigate low temperature and low pressure alternatives to the Army's primary agent destruction process. The two processes under evaluation are chemical neutralization and chemical neutralization followed by biological treatment. Results of laboratory and bench-scale tests will be used to evaluate both technologies against a formal set of pre-determined assessment criteria to decide if pilot-testing is warranted. Included in the criteria are considerations to minimize cumulative risks to the public and the requirements specified in Public Law 102-484; that is, the selected alternative technology must be "significantly safer, and equally or more cost effective than the use of the baseline disassembly and incineration process," and capable of completing the stockpile destruction by December 2004.

After laboratory and bench-scale tests, and if a decision is made to enter pilot testing, efforts will concentrate on data collection, engineering design, and planning to support possible implementation of the technology at Aberdeen Proving Ground, Maryland or Newport Chemical Activity, Indiana only. Consistent with the NRC recommendations, pilot testing will be conducted using full-scale treatment units. Full-scale facilities at the Aberdeen or Newport facility will use multiple treatment units in parallel

to meet processing rate requirements. In this manner, prototype design proven during pilot testing will not require scale-up for application in the full-scale plant.

Program planning and implementation of the program were initiated in August 1994. Laboratory and bench-scale testing and pilot-scale design were started in January 1995. Pilot-scale permit preparation will be initiated in September 1995. The decision to proceed into the next phase of development, pilot-scale testing, or terminate the Alternative Technology Program, will be made in July 1996.

In addition to performing research, the Army has also instituted a program for monitoring commercial developments in the area of hazardous waste processing to determine if a breakthrough with potential application to demilitarization is reported. This assessment process maintains the technology status database created as part of the alternative technology report process.

CHEMICAL AGENT MONITORING PROGRAM

Chemical agent monitoring is a key safety and environmental facet of the demilitarization program. The agent monitoring systems created and in-place must continue to demonstrate reliable monitoring at levels below the hazard level for workers or for the general public. The monitoring program is under regular review of the Department of Health and Human Service's Centers for Disease Control, who ensures that the monitoring systems are continuing to demonstrate the necessary precision and accuracy. The NRC also provides oversight to this critical program element.

Chemical agent monitoring protocols are always under evaluation as we continue to strive for the advancement of the technology and the improvement of our implementation capabilities. This year we developed new monitoring techniques and improved on our existing laboratory analysis methods. For example, a gas chromatograph-mass selective detector/flame photometric detector (GC-MSD/FPD) has been fielded at JACADS and the TOCDF laboratories to confirm the presence/absence of agent at monitoring stations. This technique may be further improved by replacing the flame photometric detector with a new low false positive detector, the atomic emission detector (AED). The Army is evaluating this new detection system which allows for extremely high interference rejection by detecting elements at a characteristic emission wavelength. Reduction of false positive alarms is also being addressed by a dual-automatic continuous air monitoring system (D-ACAMS). This system consists of linked ACAMS with different gas chromatographic columns, providing data communications with the plant's control room and a remote host computer. False alarms are reduced because both ACAMS must detect agent for an alarm to

activate. We expect to field these systems for testing by June 1996. Another evolution in the agent monitoring program involved the development of near real-time monitors and confirmation methods for the chemical agents Lewisite and nerve (GA).

CRYOFRACTURE DEVELOPMENT PROGRAM

Cryofracture/incineration technology testing was completed at Dugway Proving Ground (DPG), Utah; the General Atomics facilities in San Diego, California; and the Chemical Agent Munitions Disposal System (CAMDS) facility at Tooele, Utah. Testing was successfully completed in October 1993. A Special Army Systems Acquisition Review Council (ASARC), held in October 1993, recommended to the Office of the Under Secretary of Defense (Acquisition and Technology) that the baseline technology was the preferred disposal technology for implementation at the Pueblo Depot Activity (PUDA), Colorado, rather than cryofracture. This recommendation was based on cost, schedule and technology uncertainties regarding the processing of agents and energetic materials simultaneously in the same incineration system. The Office of the Secretary of Defense concurred with the Army recommendation. Congress was notified of this decision on March 4, 1994.

CSDP ENVIRONMENTAL PROGRAM

Timely and cost effective implementation of this program is based significantly on satisfying a number of environmental requirements mandated by Federal regulations which include the National Environment Policy Act, Resource Conservation and Recovery Act, Toxic Substances Control Act, Clean Air Act, Clean Water Act, and Federal Facility Compliance Act. The eight states and local municipalities in which we plan to construct and operate chemical demilitarization facilities also have promulgated regulations that in some cases are more stringent than federal regulations.

To maintain a proactive posture, we have developed an environmental strategy which is both forward thinking and flexible. For example, we are actively involved with the U.S. Environmental Protection Agency (EPA) Working Group which is composed of key Army, EPA headquarters, EPA Regions, and State environmental personnel. The group meets as necessary to facilitate and expedite the permitting process and to provide a forum for expressing and resolving problems, issues, and ideas.

Another instance of responsiveness to regulatory concerns, is the Army's development of environmental Health Risk Assessments (HRAs) despite the lack of final guidance from the EPA. This proposed HRA requirement, which is part of the National Combustion Strategy, has not been Federally mandated through a formal promulgation/public review process but, has been embraced and

adopted by the State regulatory agencies as part of the permitting process. Uncertainties and long timelines associated with conducting HRAs impact the ability of the Army to identify real estate at our Base Realignment and Closure installations for rapid transfer or lease to impacted communities for economical beneficial reuse. An additional programmatic cost impact of HRAs is the need to obtain multi-parameter/multi-level on-site meteorological monitoring data.

We continue to fully support the JACADS biological/environmental monitoring program. Dr. Phillip S. Lobel of Woods Hole Oceanographic Institution and Ms. Betty Anne Schrieber of Seabird Research, Inc. are leading studies that monitor the environment to assess any impacts chemical demilitarization operations may have on the Johnston Atoll ecosystem.

Areas of concern that could have significant cost and schedule impacts to our program include such items as proposed waste determination/characterization and land disposal restrictions that are currently being considered by the State of Utah. If the Army is required to analyze all incoming feed streams, despite the uniformity of munitions and the detailed manufacturing specifications we have provided, the cost and schedule would increase significantly. If Utah redefines the waste codes for chemical agent destruction process waste streams, such as those from the Tooele Chemical Agent Disposal Facility, to a more stringent standard, schedule delays and associated increased costs are likely to affect Tooele as well as each of the seven follow-on sites. The Army is working with the state of Utah to achieve agreement that the 5X standard is sufficient to allow the delisting of metal parts. If this process is successful, the Army would then be free to pursue resale for recycling of the metal parts, as opposed to implementing expensive procedures to landfill the munition bodies as hazardous waste.

THE PUBLIC OUTREACH PROGRAM

Public interface, whether informative in nature--as when the technical aspects of the demilitarization program are discussed with interested communities--or mandated by State statutes as during RCRA, EIS, CAA, and Certificate of Designation public comment review periods, has become a major component of the CSDP. The Citizens Advisory Commissions (CACs) have greatly benefited the program. CACs have been established in Alabama, Arkansas, Colorado, Indiana, Kentucky, Maryland, Oregon, and Utah. They have become the primary forum for the exchange of information with local communities. The Commissions' comments on the National Research Council's (NRC) February 1994 report on Alternative Technologies, reflecting concerns from local citizens, were incorporated in the

Army's subsequent report to Congress. Army representatives also met with all of the CACs throughout the year.

Late last year, an Information Office was established at Tooele, Utah, to further facilitate the communication process with local citizens. Our plans are to establish similar information centers at each of the stockpile sites. We have instituted monthly community tours of the TOCDF and have hosted visits by many local and State dignitaries, local and national news media, and community leaders from several of the other stockpile sites. Outreach efforts will continue and will consolidate the Army's communication and information efforts for storage, disposal, and emergency preparedness activities.

NON-STOCKPILE CHEMICAL MATERIEL DESTRUCTION PROGRAM

On March 13, 1991, the Deputy Secretary of Defense directed that the Department of the Army be fully accountable for all DoD chemical warfare-related materiel destruction, and designated the Secretary of the Army as the DoD executive agent. On October 1, 1992, the Army formally established the U.S. Army Chemical Materiel Destruction Agency (USACMDA) (formerly Program Manager, Chemical Demilitarization (PMCD)) as the single DoD agency responsible for the destruction of all chemical warfare materiel (CWM). It should be noted that the designation of the Chemical Demilitarization Program as an ACAT ID reestablished the organization as PMCD. The Program Manager for Non-Stockpile Chemical Materiel (PMNSCM) became a distinct and permanent element of PMCD at that time.

The 1993 Defense Authorization Act directed the Army to submit a report to identify the locations, types, and quantities of non-stockpile chemical materiel (NSCM); explain the methods to be used for their destruction; and provide the estimated costs and schedules for their destruction. An interim report was provided to Congress on April 20, 1993 and the final Survey and Analysis Report was provided November 23, 1993. This report defined the different categories of NSCM, identified locations, types and quantities of NSCM, discussed initial disposal concepts and schedules, and provided rough-order of magnitude costs. The Army plans to publish an updated Survey and Analysis Report in the 1st quarter FY 1996.

The concept plan for implementation of the Non-Stockpile Program and the program life cycle cost estimate (LCCE) were initiated in FY 1994. The plan will focus on implementation of the requirements of the Chemical Weapons Convention (CWC) and consider guidelines of the CWC Preparatory Commission as they become available. This plan will address the detailed schedules for compliance with the CWC requirements, as well as the concept for addressing buried chemical warfare materiel. This plan and the LCCE will be published 4th quarter FY 1995.

The US Army Corps of Engineers, or the installation commander in coordination with the Army Environmental Center, is responsible for remediation actions at Formerly Used Defense Sites and active Army installations. The PMNSCM acts in a support role for the recovery, transportation, and final destruction of CWM found during remedial actions. Currently the PMNSCM is supporting remedial activities at ten sites. These efforts will extend into FY 1996.

A contract for the development of a Programmatic Environmental Impact Statement was awarded in September 1994. Its purpose is to address the full scope of the non-stockpile chemical materiel to be destroyed. This is a two-year effort scheduled to be completed in 4th quarter 1997. On-going activities are supported by site-specific environmental documentation under the auspices of the National Environmental Policy Act (NEPA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Efforts continue to design, develop, test, and acquire deployable treatment systems which can be used to destroy recovered chemical materiel at the burial sites. Two systems for the assessment, accession, and on-site treatment are being pursued. The Rapid Response System (RRS) is a portable system for destruction of Chemical Agent Identification Sets. It is being fabricated for demonstration tests at Tooele Army Depot in FY 1996. The munitions management device (MMD) family of systems is designed to process non-explosively configured chemical munitions, explosively configured munitions, and bulk containers.

The thrust of the R&D and design efforts during FY 1996 is to continue development of transportable systems which will be used for on-site destruction of recovered chemical weapons. These systems include MMD1 for non-explosive munitions, the more complex MMD2 for explosively configured weapons, and MMD3 for bulk items. In FY 1997 the MMD2 will be fabricated and design studies leading to concept definition for MMD3 will be completed. The assessment and evolution of emerging destruction technology applicable to buried munitions initiated in FY 1996 will be continued in FY 1997.

The procurement effort in FY 1996 is to acquire (1) MMD support equipment to include trailers, power supply, and laboratory facilities for monitoring equipment; (2) transportable equipment to upgrade the capability to determine the fill of a recovered suspect chemical weapon; and (3) a second RRS for on-site destruction of agents in small glass bottles and vials from recovered Chemical Agent Identification and Training sets. In FY 1997, a second MMD1 will be acquired, as well as hardware to support acquisition and testing of the MMD2 and MMD3 systems.

CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM (CSEPP)

Based upon Congressional, General Accounting Office, and Department of the Army concerns, the Army streamlined the program's management structure and established a single accountable focal point within the Department of the Army (DA) to implement the program. The single focal point functions as a joint Army/Federal Emergency Management Agency (FEMA) office, and will integrate installation/community effort to improve emergency response capabilities such as equipment automation, improved communication, expanded public outreach efforts, planning and improving exercises, training, and reentry and recovery activities.

A CSEPP Joint Program and Budget Review Panel, established in 1994, provides DA and FEMA fiscal oversight of the program. The panel reviews and approves the overall CSEPP budget requests. The reviews ensure cost effectiveness, applicability to CSEPP efforts, and helps identify future funding implications of proposed initiatives.

Thirteen of the program's fourteen planning guidelines associated with emergency response have been issued to the participating jurisdictions (12 guidelines are final, two are in draft). Work continues on the final guidelines of the program which address the complex medical, reentry, decontamination, protective equipment, and restoration issues.

Progress continues in the procurement and installation of improved emergency response facilities and systems at the eight chemical sites and their related civilian communities. Installation of warning sirens is complete at six sites with the other two in various stages of procurement and installation. Improvements to the eight storage sites' emergency operations centers (EOCs) are complete or in their final stages. Improvements to local communities' EOCs are complete at seven sites and underway at the remaining site. Emergency response communication improvements are complete or underway at all eight sites. In addition, the standardized automation system (Federal Emergency Management Information System) is currently under going acceptance testing in the state of Utah.

SCHEDULE REVISIONS AND LIFE CYCLE COST UPDATES

Several events have occurred, in the past year, that affect the program's planning schedule. Table 1 represents the most current major program milestones. The issues which affected the planning schedule include:

DoD's decision to delay construction of the last four facilities (Pueblo (PUCDF), Blue Grass (BGCDF), Aberdeen (ABCDF),

Newport (NECDF)) by one year because of affordability considerations.

The JACADS operations schedule was extended to account for a liquid incinerator agent excursion incident (March 1994), interruption to plant operations due to "Hurricane John" (August 1994), an M55 rocket explosion in the process line (November 1994), and fact-of-life throughput experiences in the M55 rocket campaign.

The Chemical Demilitarization Training Facility (CDTF) operations schedule was extended to coincide with the training requirements for the last disposal facility (NECDF).

Longer review periods of the TOCDF environmental permit applications delayed the projected start of toxic operations to November 1995.

The ANCDF project award date was delayed since the State of Alabama is not expected to issue the final RCRA permit until the first or second quarter of Fiscal Year 1996.

The UMCDF and PBCDF schedules were extended in order for the RCRA permit applications to be updated with design information as was done for the Anniston permit application.

Last year, a comprehensive, bottoms-up revision of the programmatic life-cycle-cost estimate (LCCE) was conducted in 1994. Based upon incorporation of the factors identified last year, namely, extension of the JACADS program, the impact of JACADS operational experience on operating campaigns for the CONUS disposal facilities, major new CSEPP expenditures, and inflation due to schedule delays, plus recommendations of the Army's Alternative Technology Report, the 1994 LCCE was \$10.2 billion. Subsequent refinements to the LCCE have been and are being incorporated, bringing the programmatic cost estimate to at least \$11.9 billion. Some of the refinements include:

- Revised estimates for closure (decontamination and dismantlement) of CONUS disposal facilities based on a recently completed engineering analysis of closure requirements as defined by environmental directives and Congressional legislation.
- Schedule delays due to environmental permitting activities, DoD resource decisions, and operational experience obtained from JACADS.
- Revised estimates for personnel and waste disposal costs during operations. Revised personnel costs are based on the staffing and wage rate levels recently proposed by the TOCDF operations

contractor in the course of contract negotiations. Revised waste disposal costs are based on experience gained from JACADS operations and TOCDF systemization efforts.

- Refinement of conceptual capital cost estimates for adding carbon filter systems to the furnace exhaust streams of CONUS disposal facilities. Addition of carbon filter systems is being considered as an added safeguard to mitigate the potential release of hazardous material to the environment.

In January 1995, the General Accounting Office (GAO) released a report which concluded that the life-cycle costs were understated because the revised throughput rate projections for the stockpile disposal effort remained unrealistically high. After careful review of the GAO methodology, the Army did not concur with the GAO conclusion. The primary difference between the GAO approach and the approach utilized by both the Army and the independent evaluator of the JACADS Operational Verification Testing Program, the MITRE Corporation, is how standby time is treated. The Army and MITRE engineers utilized similar approaches based upon commonly used test evaluation methods and definitions for assessing operational availability. The Army will continue to assess throughput rates as more experiences are gained from the continuing operations of the prototype at Johnston Island.

The GAO also questioned the current dunnage incinerator design and commented that this incinerator may not be required in future sites. The Army had been working on a value engineering concept regarding elimination of the dunnage incinerator; however, development of a replacement system capable of processing materials now targeted for destruction in the dunnage incinerator (for instance, contaminated charcoal from the building ventilation system) would be required. The Army is continuing in its assessment of the dunnage incinerator. However, until a replacement treatment method for these wastes is identified and validated, it is not possible to eliminate the dunnage incinerator. The Army is also pleased to note that the JACADS dunnage incinerator has been successful in passing its RCRA-required trial burn and has been regularly destroying dunnage generated as part of the M55 rocket campaign.

In an effort to establish a credible and realistic baseline cost position for the program, the Army continues to refine schedule and cost estimates and effectively manage all aspects of the program within its control. We are developing a disciplined independent cost estimate which is scheduled to be completed in October 1995. We have implemented initiatives to minimize cost growth and enhance program management. Our contracts have been reviewed to ensure that we take every advantage provided by the Acquisition Reform Act; all current and future acquisition actions

have or will reflect improved mechanisms for tracking earned values; we have increased modeling and simulation efforts to improve schedule and cost predictions; and increased our efforts in the areas of value engineering to identify cost-reduction measures, and programmatic lessons learned to avoid repetition of previously encountered difficulties.

TABLE 1

CHEMICAL STOCKPILE DISPOSAL PROGRAM PLANNING SCHEDULE

<u>Location</u>	<u>Start Facility Constr</u>	<u>Start Prove-out</u>	<u>Start Operations</u>	<u>End Operations</u>
JACADS	Nov 85	Aug 88	Jan 94	Feb 00
CDTF	Jun 89	N/A	Oct 91	Mar 04
TOCDF	Sep 89	Sep 93	Nov 95	Jan 02
ANCDF	Jan 96	Nov 98	May 00	Dec 03
UMCDF	May 96	Mar 99	Sep 00	Oct 03
PBCDF	Jun 96	Feb 99	Aug 00	Oct 03
PUCDF	Apr 97	Feb 00	Aug 01	Jul 03
BGCDF	Jan 98	Nov 00	May 02	Feb 04
ABCDF	Jan 99	Jun 01	Jun 02	Apr 03
NECDF	Jan 00	Jun 02	Jun 03	Mar 04

FISCAL YEAR 1996 BUDGET

For fiscal year 1996, the budget for the Chemical Stockpile Disposal Program (CSDP) and Non-Stockpile Chemical Materiel Program (NSCMP) total \$854.7 million. This consists of \$746.7 million for the Chemical Agents and Munitions Destruction, Defense (CAMD,D) appropriation and \$108.0 million for the Military Construction, Defense (MCD) appropriation. The CAMD,D account is further divided into three budget activities: Research and Development-- \$53.4 million, Procurement--\$299.4 million and Operation and Maintenance-- \$393.9 million. Following are some of the significant activities scheduled for fiscal year 1996:

- Continuation of disposal operations at JACADS.
- Completion of CSDP testing requirements, plant and equipment modifications, and initiation of closure activities to comply with current RCRA requirements at the CAMDS facility.
- Start operations at the TOCDF.
- Continuation of munitions reconfiguration operations and initiation of construction activities at ANCDF.
- Initiation of construction activities at the UMCDF and PBCDF.
- Release of the PUCDF RFP.
- Continuation of the CSEPP to include implementation of medical readiness standards, conduct of annual exercises, emergency response personnel training, dissemination of public education and information, and operation and maintenance of warning, communications, and automated data processing systems. In addition, acquisition of equipment at the state and local jurisdiction and at the chemical stockpile storage installations to include emergency equipment for hospitals, decontamination equipment, initial procurement of limited collective protection systems, treatment, and training supplies.
- Continue environmental activities and Depot support activities at all sites.

- CSDP enhancements related to the Public Outreach, Risk Analysis, and Stockpile Surveillance programs will be on-going.
- Continue testing and acquisition of equipment and material in support of on-site destruction of recovered chemical warfare materiel in the NSCM program.
- Continue Alternative Technology research and bench-scale testing; and assess and decide further program efforts into pilot-scale test phase.

A summary of the fiscal year 1996 Chemical Demilitarization and the Non-Stockpile Chemical Materiel Program budget is found at Table 2. For comparison purposes, the budgets for fiscal years 1994 and 1995 are also included.

TABLE 2
CHEMICAL DEMILITARIZATION PROGRAM

	TOA (\$ M)		
CHEMICAL AGENTS AND MUNITIONS DESTRUCTION, DEFENSE	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>
Budget Activity 1: Research and Development			
Cryofracture Program	4.3	0.0	0.0
Alternative Technology	20.7	9.4	16.0
Non-Stockpile Chemical Materiel Program	5.7	11.3	37.4
T O T A L Research and Development	30.7	20.7	53.4
Budget Activity 2: Procurement			
Engineering Services	7.8	12.9	12.6
Chemical Stockpile Emergency Preparedness Program	31.7	11.2	26.3
Johnston Atoll Chemical Agent Disposal System	0.0	1.7	3.5
Chemical Agent Munitions Disposal System	0.0	2.2	1.1
Tooele Chemical Agent Disposal Facility	6.1	5.9	5.6
Anniston Chemical Agent Disposal Facility	0.0	0.0	25.2
Umatilla Chemical Agent Disposal Facility	0.2	57.1	72.7
Pine Bluff Chemical Agent Disposal Facility	0.0	24.2	73.5
Pueblo Chemical Agent Disposal Facility	0.0	2.5	21.8
Blue Grass Chemical Agent Disposal Facility	0.0	0.8	0.4
Newport Chemical Agent Disposal Facility	0.0	0.0	0.5
Aberdeen Chemical Agent Disposal Facility	0.0	1.1	0.5
Chemical Stockpile Disposal Program Enhancements	3.0	78.0	29.1
Non-Stockpile Chemical Materiel Program	2.2	1.4	26.6
T O T A L Procurement	51.0	199.0	299.4
Budget Activity 3: Operation and Maintenance			
Program Management--PMCD	4.4	5.6	5.6
Project Management--PM Chem Demil	6.8	8.9	10.5
Defense Finance and Accounting Support	0.0	0.0	0.8
Chemical Stockpile Emergency Preparedness Program	47.7	55.2	58.8
Program and Integration Support	10.2	8.6	9.4
Program Oversight, Environmental and Engineering Services	17.2	16.5	16.2
Johnston Atoll Chemical Agent Disposal System	106.5	107.6	118.3
Chemical Agent Munitions Disposal System	21.4	20.5	24.4
Chemical Demilitarization Training Facility	2.3	5.1	4.1
Tooele Chemical Agent Disposal Facility	46.6	65.3	94.7
Anniston Chemical Agent Disposal Facility	3.4	18.2	17.6
Umatilla Chemical Agent Disposal Facility	1.3	4.3	3.0
Pine Bluff Chemical Agent Disposal Facility	1.5	4.2	3.7
Pueblo Chemical Agent Disposal Facility	0.3	3.0	2.6
Blue Grass Chemical Agent Disposal Facility	0.1	1.5	0.9
Newport Chemical Agent Disposal Facility	0.1	0.8	0.7
Aberdeen Chemical Agent Disposal Facility	0.1	0.8	1.0

CHEMICAL DEMILITARIZATION PROGRAM
FY 1996 President's Budget Submission

	TOA (\$ M) (Continued)		
	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>
Budget Activity 3: Operation and Maintenance			
Chemical Stockpile Disposal Program Enhancements--			
JACADS Storm Damage	0.0	10.0	0.0
Other	0.0	9.5	5.8
Program Management--PM Non-Stockpile Chml Mat'l	1.6	1.6	2.9
Non-Stockpile Chemical Mat'l Program	19.7	8.6	12.9
T O T A L Operation and Maintenance	291.2	355.8	393.9
T O T A L Chemical Agents and Munitions			
Destruction, Defense	372.9	575.4*	746.7
* May not add due to rounding.			
Military Construction			
Facility Construction:			
UT, Tooele Chemical Agent Disposal Facility	0.0	4.0	0.0
AL, Anniston Chemical Agent Disposal Facility	110.9	5.0	0.0
OR, Umatilla Chemical Agent Disposal Facility	0.0	12.0	55.0
AR, Pine Bluff Chemical Agent Disposal Facility	0.0	3.0	40.0
Chemical Weapons Treaty Facilities*	1.5	0.0	0.0
Planning and Design (Various Locations)	0.0	0.0	13.0
T O T A L Military Construction	112.4*	24.0	108.0

* Includes Chemical Weapons Treaty facilities as follows:
-- FY 1994--1.5 million at Tooele Army Depot, UT.

SUMMARY

In conclusion, Mr. Chairman, chemical demilitarization is a national mission with significant importance, impact, and visibility. Including the fiscal year 1995 budget request, over \$4.3 billion has been expended or requested in support of the U.S. Chemical Demilitarization Program, to date.

As we continue with full-scale disposal operations at JACADS; prepare to commence operations at the Tooele facility; and prepare for a contract award to construct the Anniston facility, we are focused on our goal of reducing risk to the nation by safely destroying the nation's stockpile of chemical weapons while meeting all environmental requirements. The Army is aggressively pursuing research and development testing efforts on two promising alternative technologies (neutralization and neutralization followed by biodegradation for potential use at the bulk only storage sites, Aberdeen Proving Ground, Maryland and Newport Chemical Activity, Indiana. We continue to monitor the maturity and breakthrough of alternative technologies and explore alternative approaches which may be identified in the commercial market. The Non-Stockpile Chemical Materiel (NSCM) Program is evolving. The Programmatic Environmental Impact Statement for the NSCM Program is currently being developed, which will address the full scope of the non-stockpile chemical material to be destroyed.

A new organizational management structure has been created for the Chemical Stockpile Emergency Preparedness Program. This was successfully accomplished due to the exceptional cooperation and teamwork demonstrated by both Army and the Federal Emergency Management Agency (FEMA). A Joint Program and Budget Review Panel has been established to exercise greater financial control over the program.

As we proceed toward our goal, we are constantly aware of the public's intense interest in this program. We have and will continue to work closely with the established Chemical Demilitarization Citizens Advisory Commissions and the Public. We are progressing in developing a Strategic Communications Plan for each of the eight CONUS storage sites, which will encourage public involvement and dialogue. We are committed to be forthright, open and responsive to the public need for full disclosure, open communications and timely information. In all our endeavors, we will never forget that safety and protection of the environment are first. The impact to our workers, our families, the communities and our nation is too great not to fully commit to safety as the program's paramount consideration.

The Army concurs with the NRC's report that all decisions regarding the Chemical Stockpile Disposal Program should be made on the basis of total risk to the public. Mr. Chairman, we ask for your support and this Committee's support in approving our Fiscal Year 1995 Budget Request which will demonstrate our commitment to the communities surrounding our storage sites.

Mr. Chairman, there are challenges that may result in unknown, unforeseeable, and uncontrollable factors which could cause changes in the program. To manage and mitigate to the maximum extent possible the impact of these challenges, we have implemented cost reduction initiatives and established Integrated Product Teams to resolve critical program issues. You can be assured that the Army will do everything within our capability to execute this mission within affordable constraints while accomplishing it safely and efficiently.

In closing, we must commend the people that work the Chemical Demilitarization Program. We are truly fortunate that we have such dedicated, professional personnel who genuinely care about the jobs they are doing. Without their work and the support of the Congress and the American people, the program cannot be successful.

Mr. Chairman, we thank you for the opportunity to present this statement to you and to members of your Committee. We look forward to responding to your questions.

Mr. HUNTER. Just one fast question on this, on your testimony. We are destroying systems at what rate at Johnston Island?

Mr. DECKER. The production rate? We finished the M55 rockets in early July. I forget the exact date. And the peak rate we ran at the last part of that campaign was about 671 rockets per day.

Mr. HUNTER. If you destroyed everything at Johnston Island, if you take the total tonnage that you testified to initially that we have in stockpile, how long would it take? Just to give the committee an idea.

Mr. DECKER. You mean if we took the total base at all eight sites and waved a wand and moved it to Johnston?

Mr. HUNTER. What percentage of the total stockpile does Johnston have the capability of destroying assuming you had transportation over a period of time just to give people kind of a bird's eye view of what capacity you are looking at?

Mr. DECKER. I think it is around 5 or 6 percent. Is that the right number?

Mr. DECKER. Six percent of the total is at Johnston, and at the rate we are going now—I need to take that question for the record.

Mr. HUNTER. OK.

Mr. DECKER. I will have you an answer before the end of the day.

Mr. HUNTER. Get back with us before the end of the day. Thank you very much.

The following information was received for the record:

Johnson Atoll Chemical Agent Disposal System (JACADS) is currently scheduled to dispose of the remaining four percent of the cumulative United States (U.S.) stockpile stored on Johnston Island by February of 2000. This roughly translates into 1 percent disposal per year, as compared to Tooele Chemical Agent Disposal Facility's (TOCDF's) average rate of six percent per year. This rate differential is driven by several key factors:

(1) The operational timelines include both processing times for each munition type and also the time required to change over equipment and monitoring systems between agent campaigns. While only 6.6 percent of the United States chemical weapons stockpile was originally stored on Johnston Island, that 6.6 percent was distributed among almost every agent/munition configuration. Therefore, by the time JACADS works through the learning curve normal for the first time munition configuration, we have nearly completed all of that munition type. Therefore, JACADS will spend almost all of its processing life in the relatively inefficient processing regime typical for new munition/agent configurations.

(2) In terms of raw plant capacity, the JACADS only has one liquid incinerator. That, coupled with the lack of a slag removal system, effectively reduces the JACADS ability to process bulk items (sixty-seven percent of the U.S. stockpile inventory) by approximately fifty percent as compared to the TOCDF demil facility. It should be noted that two liquid incinerators are installed at locations where large quantities of bulk agent are stored. So, you can see that this JACADS limitation is very significant.

(3) There are other differences between JACADS (as the prototype) and future facilities that reduce JACADS's capacity depending on the munition type being processed. For instance, JACADS does not have a spare mist eliminator for the deactivation furnace, thus rocket campaigns at JACADS require additional processing shutdowns to replace the mist eliminator elements. The design of TOCDF and future sites incorporate a spare to mitigate against these shutdowns.

(4) It should be pointed out that the only item in the United States chemical agent stockpile that physically cannot be processed at the JACADS is the VX filled spray tank. This item is too large to process through the air locks and munition processing bay elevator systems currently installed at JACADS. (Johnston Island had no spray tanks in the inventory and thus the material handling systems for bulk items were not designed to accommodate the spray tanks.)

We would be remiss if we did not point out that the Johnston Island infrastructure (housing and support facilities) would require substantial upgrades to support

an expanded and lengthy addition to the demil program above what is currently scheduled through closure in February 2001.

Mr. HUNTER. General Orton, thank you for being with us. The floor is yours.

**STATEMENT OF MAJ. GEN. ROBERT D. ORTON, PROJECT
MANAGER, CHEMICAL DEMILITARIZATION**

General ORTON. Mr. Chairman, I appreciate the opportunity to be here. I am going to claim a little bit of an advance excuse. I had a little eye surgery done a couple of weeks ago and I am still not seeing clearly. I have the answer to your question but I can't read my chart in front of me. It will come up in bigger print over here in a moment.

My task today is to present a review and update of the program, how it is organized, what we are doing, and what some of the issues are in front of it, and we have elected to use some charts with that. We have provided reading copies at your place as well as the charts that are there.

This chart illustrates what the organization that I have been tasked to lead encompasses in terms of the demilitarization program. It includes the stockpile disposal that we have talked about some already this morning. It includes the chemical stockpile emergency preparedness program, which is the program for dealing with the safety and security of citizens around the sites as they exist today and will also carry over to the demilitarization. We also look at the nonstockpile chemical related material, things that are found left over from a bygone era, and we will explain that further as we get into the briefing.

The fundamental mission is to destroy U.S. chemical warfare related material, to include the national stockpile of chemical weapons, and we are committed, as Mr. Decker has alluded, to ensuring that we fully protect the civilian population, the work force, and the environment as we carry out that mission.

The next chart. To refresh those who have seen it before and to inform those who are new to this program, the stockpile consists of a variety of agents in a variety of munitions or containers. So you see that we have two types of nerve agents, GB and VX, very different in their characteristics. We have three kinds of blister agents somewhat similar in their characteristics. We have several kinds of containers. We have rockets, we have artillery shells, we have mortar rounds, we have land mines, we have bombs, spray tanks, ton containers, all those kind of things. Some have energetics, like the rockets; some don't like the bulk storage that was alluded to in the opening statements. Some lend themselves to reverse assembly, some don't, like the rockets. Some agents tend to change over time in storage, solidify partially, polarize, that sort of thing.

The point of all this is that each demilitarization plant must be designed and must have its design based on the specific agents and munitions that that site stores. No two sites are the same in that situation, and in fact we have really over 50 configurations to deal with in this stockpile. Each is different, and it makes for a very complex program that we must carefully integrate as we go down the road.

Next chart. This chart is a reminder of where the chemical weapons are, in fact, stored. The percentages shown in the boxes indicate how much of the net stockpile is located at each site. I think you can see across the bore that Johnston Atoll stockpile is 6.6 percent. So that gets to the early question, 6.6 percent of the stockpile is there. And as we are constrained by the rules now, we talk only about what we have on-site to be destroyed, and not involving any movement. It is a national challenge.

I would point out Tooele has the largest stockpile, almost 42 percent of the stockpile. The distribution varies, as I have said earlier. And I would also say we have two States identified on the map in a little different coloration. They do not have a stockpile but they are very close to a stockpile storage site. They are on the edge of the State line, if you will, and that impacts the chemical emergency preparedness program allocations for those States.

Next chart, please. This chart is designed to give you a little simple view of how we design the munitions disposal process. You see munitions are routinely kept in a storage facility, designed again to the configuration of the munitions there—most commonly in ammunition igloos with high security. The weapons are brought from that storage facility and then we have a concept of safety in layers.

You see the outer green area which requires construction so that it will contain agent under any circumstance. Within the yellow box, we are looking at an area in which we have explosively configured munitions. We must contain both the explosive and the agent. We then separate these components into their appropriate waste streams and destroy them in the furnaces that are shown in the white boxes toward the center of the chart. The residue that results goes through the pollution abatement systems and gives you the end products that we have to deal with.

The concept of safety in layers is an important one. We need to ensure that a single event which will occur, a munition detonating in the chamber or something of that sort is fully contained, that the risk of it escaping is as low as it possibly can be.

Mr. HUNTER. General, that type of facility, that represents what we have at Tooele and Johnston Island?

General ORTON. It does, yes, sir. In the jargon of the trade, it is the baseline technology approach. Alternative technologies would be substantially the same but may substitute ways of doing something in those white boxes that were down there.

This chart is the stockpile disposal schedule as we now see it. It is a complex integration challenge. The program manages concurrent construction sites. We don't want to start them all at the same time and overburden our system to deal with that. It addresses affordability. It allows contractors to prepare site-specific bids to do the work and it uses standardized equipment that we have developed over time to ensure that we have the reliability in our equipment as well as cost consciousness.

The program is scheduled to complete destruction of the last stockpile item in the year 2004 in accordance with the current schedule. That schedule is ambitious. It needs balanced funding to succeed and must presume success in dealing with the various States in the permitting processes. As you can imagine, it requires extensive coordination to bring all of this together.

Next chart, please. With this chart I want to talk just a little bit about Johnston Island. As Mr. Decker has pointed out, it is the pioneer facility, first to be integrated, and the first to encounter and resolve the various challenges to the process that occur as we have developed it.

As the Assistant Secretary mentioned here we summarize the work that has been completed. The tag line here is demilitarization is happening now. It is going on. We are destroying chemical munitions. And the records of what has been destroyed is there.

I have a comment on the rockets briefly. We have reserved out certain of the leaking rounds in order to sample them and analyze them as part of the direction of studying the stability of our stockpile. Those samples taken will enable those who are doing this study to determine or at least attempt to determine the impact of agent on the various explosive components of the rockets. But we would emphasize that JACADS has been a pioneering facility. It has been operational since 1990.

In comparison with other kinds of chemical plants that have been commissioned and put into service across the country for a variety of things, production of plastics or oil refineries and so on, our record of success, our record of safety is certainly among the top.

Next chart, please. We will talk briefly now to the facility at Tooele in Utah. Preliminary results from the surrogate burns now are looking good. Surrogate burns are taking material that mimics the actual agent, but is not of the actual lethality of the agent, and tests them in the various systems of the plant.

The training of the personnel is completed—approximately 600 personnel that will be associated with that plant operation, the storage, the whole thing that goes on out there. It is a quality work force with a high content of scientists and engineers that will be on the scene to do the work.

We have established at Aberdeen Proving Ground a facility dedicated to train plant operators for these kinds of plants and we have used that extensively in staging the work force to the site, looking to completing the permitting action and actions systemizing the plant and looking to a start in the fall of 1995. I think it is interesting at least, if not germane, to talk about some of the physical characteristics of one of these plants.

There are 5,600 tons of steel in this plant. There are 24,000 cubic yards of concrete. There are 540 miles of electrical wire involved in this plant. Show the picture. Don't have that one?

I would say to you regarding the point of bringing those numbers out is that it is a large facility. This is not a small paint manufacturing operation in the industrial section of our average city. This is a major plant of large proportions and large complexity.

Next chart, please. In a number of our processes, we have called upon the National Research Council—

Mr. HUNTER. Let me, General, just before you do that, Tooele has what capacity in terms of eliminating chemicals on a per year basis?

General ORTON. I have to look that up for you and provide it for you per year. They do have 42 percent of the stockpile. So once they start and proceed through that schedule that was shown on

the other chart, they will have eliminated 42 percent of the total stockpile.

Mr. HUNTER. Over how many years is that?

General ORTON. Through 2004.

Mr. HUNTER. OK. Thanks.

General ORTON. The year 2002.

Mr. DECKER. The year 2002 is when that particular site finishes.

General ORTON. That particular facility comes down, I am sorry.

Returning to this chart, the National Research Council has examined our program recently and has given us recommendations on what to do. They endorsed the baseline process. They recommended certain other things in addition to the process we were working. They emphasized proceeding without delay using proven technology, the baseline technology, and that alludes to the risk diagram that Mr. Decker showed you earlier as the rationale for doing it.

Delay does not gain you anything in terms of safety or accomplishment of this mission. We have done very detailed risk assessments over time but it is time that they were updated and relooked at as risk assessment technology and our technology progress. So it is prudent to do that and to create an aggressive alternative technology program. We have accepted that advice. We try to use the best advice we can get on this program and the work is ongoing. There is no alternative, however, available today on the street that I can just walk out and say, Bid on that and turn on the switch.

The alternative program recommended seeks to identify alternatives and bring them then through a research process to see if they can do the job safely and well. The bottom line of this is a parallel path has been recommended, and Dr. Magee of the National Research Council will be here at the later panel and be able to address what their work has been.

Next chart, please. I would like to just expand a little bit on the alternative technologies and approaches. It is not just technology, but how you use it and how you apply it that pertains in this program and we are looking at both.

The need is to assure that the demil program uses the best demonstrated technology available that will accomplish the mission. The R&D technology approach favored in public comment in this recent round have looked to low temperature, low pressure solutions. And we have aggressive research focused on two particular alternative technologies, neutralizing the chemical agent in some form or configuration, and the second one is neutralization and then using biodegradation of the products of the neutralization process.

We are open to innovation. We continue to reach out to others who may have an idea, a developed idea, if you will, on how to go forward and do this work and what the advantages and disadvantages are. We want to stay open to innovation. We don't want to freeze ourselves out of what may be a technological breakthrough at some point in time.

Next chart. We have been asked, and rightly so, to pursue a vigorous public outreach strategy given the community's key involvement in this program and their obvious keen interest. We are

working to develop community partnerships, to ensure that concise and understandable information is available to the public from sources they can rely upon. We want to ensure that we go where the people are.

Frequently in my previous experience with this program, we kind of became the nameless, faceless bureaucrats in Washington and were not right out there where the people are talking to them as much as we should on a day-by-day basis. We hold large public meetings and get engaged in question exchanges and those have value. But day to day, somebody ought to be able to walk into the shop and ask the question that occurred to them that day and get a reasonable answer. So we are pushing that in our public outreach program. We recognize the success of this program is dependent upon community support.

Next chart, please. The chemical stockpile emergency preparedness project is an important aspect of our business. In simplest terms, its mission is public protection. We are to deal with those folks with a special focus on the public protection for those who are in the States and local communities that have storage facilities.

There are 10 States and there are 39 counties that are affected by this program. We are in partnership with the Federal Emergency Management Agency, with the State regulatory and emergency agencies, and the local communities in addressing this issue.

We look at stockpile and demilitarization risks. We are concerned with supplementing or adding to the existing on- and off-post emergency capabilities in these areas. Our program is not one to establish from ground zero an emergency management program for a jurisdiction, but rather to build upon their existing capability, and to make sure that it provides the right capability to deal with this kind of hazard.

We have an integrated process team working to ensure we are identifying the real concerns of the States and the real needs of the local communities; working together to ensure that we were wisely using the funding that is associated with this program, as well. And representatives of the Federal Emergency Management Agency and the communities are here today and you will be able to hear from them about the program.

The program is really beginning to gain momentum at this point in time. A lot has been done already in terms of the things you see on the chart. And a good deal of work is being done right as we speak in terms of developing the system so it operates smoothly day to day.

Next chart, please. I want to talk briefly about the nonstockpile chemical material destruction program. The chart shows you what is involved in these things: former production facilities, recovered munitions coming from old firing sites and training sites, various equipment associated with it, and the binary unitary stockpile, should we reach the point in treaty commitments that we are ready to destroy those munitions as well. These projects we are working on are related to the Chemical Weapons Convention that is pending ratification and implementation as a global treaty to ban chemical weapons.

The other problem that is out there is the buried munitions problem. That is really a function of the defense environmental recov-

ery programs and will be taken care of in that vein. Our focus is on those four items identified in the top bullet.

Next chart. This is also a complex program. We are defining where it needs to go, developing a baseline, the cost schedules and so on.

To give you a feel for the scope, there are 215 burial sites at 82 locations in 33 States, the District of Columbia, and the Virgin Islands, that are involved with this particular program. So it is a major complexity that we will have to deal with as well.

Next chart. I mentioned earlier that balanced funding is essential to having the program move forward. Here are the balanced budget requests that we think are appropriate. The funding that will come with the funding of this appropriation would do the following things: it would keep the Johnston Island activity operating on its current schedule. It would initiate the operations at Tooele. It would maintain and operate our training facility, the demilitarization training facility at Aberdeen Proving Ground. It would initiate the construction efforts at Anniston, Pine Bluff, and Umatilla Depots assuming that we are successful with the permitting processes for that. It would maintain the stockpile emergency program and it would maintain the nonstockpile efforts that I just outlined. It supports a safe destruction of the chemical warfare material.

We heard a good deal of discussion on cost growth, as you can imagine. We are dealing with processes and technologies that are unprecedented. And so it has been difficult to predict with the degree of accuracy we would like what the costs would be, and then as time has progressed in this program, new requirements or different requirements have caused us to have to change what we are doing and in the process we have increased cost.

You see some of the reasons for growth there on the chart, environmental permitting delays and so on. All of those things are valid acts, things that needed to be done. I am not challenging their value, but they certainly are things that cause delay in the program, which causes an increase in cost.

In our view of things now, we have our first plants coming on line. We have our first plant constructed. We have learned from the firsts. And now I would expect that our costs would begin to level off and decline as a result of our experience factors being applied. There are some moving goalposts. As we as a nation get better informed and a better understanding of environmental requirements, our environmental regulation becomes more detailed and more complex. And I don't challenge that at all.

But I want to illustrate to you the complexity of the program. Behind me on the table, unless somebody walked off with it, is one permit application for a plant of this size, using the baseline technology. So it is not a small project to do that. The application is also very important, and it is something that we take very seriously as we put it together and we need to do it.

Mr. HUNTER. General, that is almost as much paperwork as is required to apply for a permit to build a home in San Diego County.

General ORTON. Golly, you have a tough situation out there. Goodness—OK. The next chart.

We are, and I am charged personally, as I took this job, I will talk to that in just a minute, to provide emphasis on cost containment efforts. I want to emphasize that that emphasis is not to be at the expense of safety, environmental concerns, and those things, but it is to be smart enough to look at what we are doing and see if there are not better ways to control the costs and keep them under control and understand what they are.

If you don't know what your cost drivers are, you can't control them. And that is what we are working hard to do. We want to find better ways to incentivize productivity in terms of doing the work, operating the facilities. We want to eliminate or combine similar contract requirements for efficiency. We want to ensure that all of the lessons learned we have gathered out of these first plant experiences, the pioneering experiences, are incorporated so we don't pay extra, if you will, for doing the same thing in a new plant that we found out about in an old plant. We recognize that managing change is key to controlling cost for the future.

Next chart, please. This chart is called hot topics. I am not sure that that really concerns you, but it is what is hot on my plate at the moment, and I think will help you understand kind of the things that we are dealing with. We are working with the varying environmental requirements to ensure we get the plants permitted and keep them as close to schedule as possible. We are dealing with the technical choice issues and that pertains to alternative technologies. We want to make wise choices as to what technologies to pursue, wise choices as to their integration into the program as it stands now. We don't want to stop the program, delay the program, but we don't want to freeze out any kind of good idea that might make it easier to do the job.

Cost management I discussed already. We want to do that carefully and well. We want to achieve the flexibility to study all approaches to this program, alternative technologies, various sites of choice, some of the things that you all mentioned in your opening statements. We would like to have the flexibility to do that in terms of studying various techniques and applications.

The final bullet there I put in is keeping commitments and speaking with one voice. A lot of commitments have been made over time, and I take it as one of my charters to ensure that I understand what was committed; who it was committed to; and that we live up to our commitment; or we agree not to, we agree to a changed course of action. I am not advocating a stagnant situation, but one that we keep open and up on the table with all of the constituencies that are dealing with this program.

Finally, speaking with one voice. Sometimes we are accused of not speaking with one voice, but I can assure you that I work very closely with both Mr. Decker and Dr. Prociv to ensure that the three of us are on the same sheet of music, and then equally importantly, that the folks that work with us in doing this job understand where we are in that and that we speak with one voice. If we have clogged the pipe of communication somewhere, I seek to know that so I can apply the Drano to clear it out. We want to ensure that we are communicating with people across the board.

I was asked by a very persuasive recruiter to take this job, and the challenges are certainly substantial. Some of my friends sug-

gested that rather than moving to Aberdeen Proving Ground, I should have been sent to San Antonio, TX, where the medical museum is, as a living, breathing example of a lunatic.

But I can tell you that I have been in and out of the program in prior years. I recognize its importance to the American Nation and to its people, and I am honored to be asked to be a part of making it happen, to make this thing work, and to bring together the interests that are there and build upon the major achievements of the folks who pioneered this program and who stuck with it through thick and thin through so many years.

I use as a theme phrase sometimes, steady on. And that is the approach we want to make to this program, steady on. That is a Kipling kind of quotation, when the British squad was being pinned down by heavy fire from their opponents in the battlefield, the sergeant's command to his soldiers in the face of withering fire was "Steady on, boys, steady on!" If you do that, you will succeed, in my view, in the long haul, in the long term.

It is my distinct honor to appear before you today. I am learning rapidly the details of the up-to-date program. Don't have them all yet, but I will shortly. And we will pledge to you that we will continue to work to do this program in protecting the public's interest, protecting our employees' interest, and looking to effective cost management.

Thank you, Mr. Chairman.

Mr. HUNTER. Thank you, General, for your service to the country and for a very thorough presentation.

Mr. HUNTER. I know Mr. Sisisky has a question or two, a clarification he would like to ask before we go to the next panel, and the ranking member. Go ahead, Norm.

Mr. SISISKY. Thank you, gentlemen.

My concern is that there is a lot of concerns about the program, but mainly in the cost growth area. What do we estimate Johnston Island would cost? I was out there 7 or 8 years ago. I couldn't believe what I saw. They kept saying, it is going to work, it is going to be working. Every year, it is going to be working.

It never worked. I say never worked, excuse me. But we got 6.6 percent of the chemicals out there. How much have we destroyed, 2 percent of that 6.6?

Mr. DECKER. The part we have destroyed to date is a little over 2 percent of the stockpile nationally. Six percent of the total at Johnston, we have destroyed about one-third of it.

Mr. SISISKY. Now, I mean I am sure that that cost of doing Johnston Island is just astronomical; I mean, from what we estimated it would cost to what it costs. But even your costs are astronomical, if you look at it. From 1994 to 1995, what is it, 16-, 17-percent growth, if you extrapolate that down for 5 to 6 years, and I have been here long enough to know that even then we were really talking about serious money.

Something the chairman alluded to which aroused my interest, why do we need nine sites? Is there a real reason if we can develop with two sites or even three sites to do this? Is it transportation—transporting? Certainly, there are new technologies in transportation and safety that we could get. Is there any reason that you have to do nine sites? I can't get it in my head.

Mr. DECKER. That is a good question, and I don't like to give hip shot answers. But I am going to not be as direct as I normally am. I have not been on the job that long. But I have read very clearly the laws, and they are very tightly constructed. And we might bend the rules occasionally, but we don't knowingly bend the law. And the laws expressly prohibit not only the transportation of the goods from their storage site, but prohibit spending government monies to even study and analyze transportation methods.

Mr. SISISKY. But is there new technology in transportation? I understood that there is.

Mr. DECKER. There perhaps could be, but we do not energize ourselves—

Mr. SISISKY. I know we don't need another study. We talked about this at the beginning.

Mr. DECKER. We have got to study something to get it started.

Mr. SISISKY. It seems to me if transportation is a problem, we can solve that problem, you know. And we are talking about huge sums of money here. I mean huge sums. This is no little thing. If somebody estimates widely at \$15 billion, I will guarantee it right now that we are not even close to doing this. We are just fooling ourselves and I am very concerned about it.

Thank you, Mr. Chairman.

Mr. PROCIV. If I might add, in General Orton's presentation he commented on needing the flexibility to be able to look at the various options. We probably do need to take a look at some of those options, but right now we could not. There is a law that prohibits us from studying the transportation option. And that is, of course, out of our hands.

Mr. SISISKY. Mr. Chairman, if that is the case, maybe we need to do something about that.

Mr. HUNTER. Well, the gentleman raises an interesting question. It is interesting that we obviously have a transportation program for moving these weapons to the battlefield. But ironically, we can't move them to destroy them.

The gentleman from Utah.

Mr. HANSEN. Thank you, Mr. Chairman. I think the gentleman from Virginia has hit on something that I think the reason for this meeting is being held, and that is this is escalating into one of the biggest ticket items that the military has to very likely do.

As you look at the percentage from 1992 to 1995, we are looking at an awfully big ticket item here. Just to put this in perspective, Johnston Island is coming on line. We know that. What is Johnston Island supposed to do? What is that supposed to demolish? Stuff from Europe; isn't it?

Mr. DECKER. The stockpile from Europe was moved to Johnston.

Mr. HANSEN. We are well on the way. Got that done. The others under the plan we now have are supposed to be done on site. Forty-three percent is supposed to be done using baseline technology to take care of Tooele. At the conclusion of Tooele, it is supposed to be destroyed as we have it right now.

The same thing goes to Anniston, our next area, which I understand is baseline technology also. Is that correct? It goes to Anniston, you build another billion dollar facility, and then we destroy that one. And we go down a litany of the people you had on your

chart there, each one becoming more expensive down through the 3.9 percent.

By the time you get through this, the gentleman from Virginia hit it right on the head. You pointed out that it is impossible to move it as per the law. I think some of us have been around here quite awhile, realize that we debated this in great detail, and it was determined that they would be destroyed on site and we would not move them because Governors, legislators, and others got real excited about moving things across their property.

In the State of Utah some time ago, when Governor Matheson was the Governor of the State and I was the Speaker of the House, we moved some weteye bombs from Stapleton in Denver over to Michael Field at Dugway, then over to Tooele, where they are to this day. Everyone was concerned about that. It cost a lot more money because of the concerns. They even had highway patrolmen watching each culvert that they went under. Cost us a couple of million dollars more. And to this day most people in Utah don't even realize that it has happened. But they were moved safely.

Let me ask you this about the idea that the gentleman from Virginia brought up. I know you don't even want to talk about it, but if it comes right down to it, isn't it true that the military spent an awful lot of money to determine ways in which transportation could move these areas, both by land, by train, and by air? Isn't that true, we had a study on that in the early 1980's?

General ORTON. In the past we have had a study on the options of transportation.

Mr. HANSEN. Now you shelved that one, wisely so, because you are nervous about the law. I don't blame you for that. Is that correct?

Mr. PROCIV. Well, that study was done in 1982. It was in a different climate at the time. The cost of the program was not as high. So we looked at both costs and risks and determined that the eight sites would be just as effective.

Mr. HANSEN. Has anyone given us a figure as to the cost of moving it? Mr. Sisisky talked about compared with the cost of building all these new plants. Would you accept the premise that there is quite a disparity between the two figures?

Mr. PROCIV. We certainly would have to evaluate that.

Mr. HANSEN. I see.

Let me quickly, if I may, Mr. Chairman——

Mr. HUNTER. They can evaluate it, but it is against the law for them to evaluate it.

Go ahead, Mr. Hansen.

Mr. HANSEN. Excuse me. Let me go to this idea of alternatives. You talked about alternatives, but you have done it in sweeping generalities, if I may respectfully say so. General Orton, you said that you really don't have a viable alternative at this particular point. So there is a lot of floating out there; is that right?

General ORTON. Yes, sir. We have asked the NRC in recent times to scan the spectrum of alternative possibilities. We then took the four or five, I don't remember the exact number, that they identified, and down selected to two that had the strongest support in community and local group surveys. Those are the neutralization and neutralization biodegradable techniques, which we are aggres-

sively pursuing. We have about \$4 or \$5 million invested in a program to develop those two alternative technologies. In about a year, we will be able to look at them and go to our evaluation folks in the Pentagon and recommend to them—

Mr. HANSEN. As I recall, back in the early 1980's—excuse me, General. We got into this also, but I remember we talked about cryofracture for a long time, dipping it in liquid nitrogen, the dunnage, hitting it with a press, and then burning it. But that has been rejected; is that right?

General ORTON. That has.

Mr. HANSEN. Even though we do have a prototype of cryofracture in Dugway proving grounds right now; is that correct? So has that been rejected?

Mr. PROCIV. In the early 1980's, we did a lot of work at Rocky Mountain Arsenal as well as looking at neutralization techniques. These techniques didn't come up with the kind of results we wanted. We found a residue agent in the material. We had almost a 30 to 1 increase in volume. We had problems of disposing of that residue, reactions weren't complete. We just had a lot of problems with those.

Cryofracture came along. Cryofracture was not a solution to destruction; it was only a solution to what we are doing now, the reverse assembly. It was only a way to access the chemical agent. We have not found an advantage to the cryofracture process versus what we have done now.

Mr. HANSEN. But you are not going to give up on baseline technology; you are still going to keep the mainstream of that going until one of these alternatives, if one does develop, comes along; is that right, Mr. Secretary?

Mr. DECKER. That is correct. If you go back to the bar charts of the schedule that General Orton showed you, backed up by much detail, and the assumptions on certain events beyond our control, no matter how you might assess the hardness of those schedules or as best that we can make them now, permitting delays being the biggest unknown.

Having said that, that schedule is all baseline technology, and in parallel, we are truly pursuing it. But until we reach confidence with all the advice we can get, and I mean that seriously, we will have a citizens' participation, NRC, that an alternative technology can be productized—most of it is at the bench lab status now that we think show promise. It is a long step from there to putting in a production facility. And we all feel we will have to go through at least one pilot plant stage, which won't be cheap. That is not stopping the bars on General Orton's chart. That is what we are pursuing. That is the baseline plant.

Now, there is some debate, there is some discussion that we should perhaps suspend some of those bars and wait and see on the alternative technology. That is a choice. We have chosen not to do that on our baseline schedule, and so we, until further notice, are pursuing that baseline schedule with baseline technology.

Mr. HANSEN. Thank you. I hope, Mr. Chairman, if I may say so, I hope the committee is cognizant of the fact that in Tooele, Utah, there has been something called chemical agent disposal system [CAMDS] for an awfully long time, which has been there and has

literally destroyed hundreds of rockets, mines, and the whole bit, and do it quite successfully. And basically that was the prototype that they used to come up with the baseline technology of Johnston Island and also Tooele.

I think you are aware that took us, from the early 1970's, a long time before we ever figured out how to use the facility and get the process perfected. So these alternative technologies—I hope the committee doesn't feel that this is some pie in the sky idea that they are all going to glom on to in the next 20 minutes and going to work. Because this is a long way out. I think the Secretary aptly pointed out there is a lot of technology to prove it.

I have taken too much time. Just let me conclude by saying this. I think that Mr. Sisisky hit it on the head. We have all of a sudden got a mushrooming, big, huge outlay coming at us, and I think the committee, as politically unpopular as it may be, should look at other ways to handle this area, rather than going ahead with this huge outlay of money to take care of these actually billions of dollars we are looking at. Excuse me for using so much time.

Mr. HUNTER. The gentleman is absolutely entitled. Since he has got a plant that is going to come on line shortly and has a lot of expertise here, your questions have been very instructive. And this is kind of an important line of questioning.

Mr. Browder, did you have a question or two?

Mr. BROWDER. Yes, Mr. Chairman. I think Mr. Hansen and I both are going to be raising some questions because we have the first two sites.

The transportation issue, Mr. Chairman, and members of the committee, is one where we're stumbled upon a shadow that is going to hang over this committee and this process now. There is a lot of lightning in this cloud hanging over us. This is tough.

Back when they decided upon the eight sites, it was before I came here, back in the early, mid-1980's, I think they had a public hearing in Anniston and I don't even know whether anybody showed up. But this decision was made a while back. Now it is—the cost is increasing dramatically. The question—the controversy is increasing dramatically. And transportation makes sense because of the cost.

But let me tell you, I sit there with several hundred thousand people within 20 miles of 75—78,000 of these M55 rockets and just tons of other stuff. Several hundred thousand people, a standard metropolitan statistical area surrounding mine. Now, if anybody thinks that we are going to naively waltz into a discussion like this about transportation, when Mr. Hansen's is first, mine is second, and we might say, hey, we have got enough, let's transport everything else to Alabama, folks, that is unreal. I would be happy, Mr. Sisisky, to nominate your district.

Mr. SISISKY. I would tell the gentleman that we are storing nuclear waste now. We have to. We are decommissioning ships. So I understand that. I don't like it and we are in an area of over a million people. But it is something that we have to do.

Mr. BROWDER. It may be, but let me tell you, you can draw a line from every one of the eight sites in the country to the other sites. And you talk about an industry that has been created to save our base with the base closure process. If you start talking about trans-

porting stuff from those places through all those States, you are talking about bringing up an environmental community and a legal community that is going to—perhaps it will solve the recession woes that we have—be an industry. I think we have to be very careful about it. I think we have to look at it.

But sitting there as the No. 2 site, I am not going to sit there and let us proceed while I am hearing talk about transporting everything perhaps to what sites are there. I would be happy to let somebody else step forward and construct theirs.

Mr. HUNTER. We will take volunteers at the end of the hearing.

Mr. BROWDER. Perhaps we can take volunteers. Thank you, Mr. Chairman.

Mr. HUNTER. Thank you, Mr. Browder.

Does anybody else have any questions for these witnesses before they go? Because they will be coming back to ask—to answer these wrap-up questions in panel four and to answer questions that have been raised. But if anybody has any clarifying questions here.

Mr. BUYER. I did have one, just real quick.

Mr. HUNTER. The gentleman is recognized.

Mr. BUYER. Mr. Chairman, the NRC recommended to the Army back in 1994 about the application of the carbon filters. Is that being done?

Mr. DECKER. There is a pilot construction under way as we speak at Tooele. It doesn't impact the other aspects of the plan, because it is the final stage of filtering. And the NRC was pretty strong in recommending we ought to really run that through. The only effective way to know, we believed at that time, was to put one in. So the final stage filter construction is under way at Tooele as we speak.

The plant is complete beyond that. There is some controversy as to whether the carbon filters are required to meet the standards of safety. It does certainly add some additional insurance, but it is awfully expensive insurance. We are going to be reexamining the issue in concert with the National Research Council to see if we have enough data to do modeling and simulation to get a handle on the different scenarios. The bottom line answer is, yes, we did implement that recommendation and it is in the final stages of getting added on to the final stage filtering at Tooele.

Mr. BUYER. All right. Thank you. I have just a comment to make in response to my friend from Alabama, Glen.

Mr. DECKER. May I add one thing, sir? It is not being used at Johnston. It is not proven that it has been needed there so far.

Mr. BUYER. You know, when I look at the issue of transportation, I believe we are not naively walking into it. If in fact you have got the scenario, I mean, you can look at the geography here pretty easy, or, Mr. Hansen and I would have the same concern.

We have got the West and we can move it from the West into Utah. If you are going to do that, you are going to say, well, going to the carbon filter is going to be more expensive, we end up having to make a consolidation. I think it may well be worth the expenditure to do that kind of thing.

I think we have kind of caught ourselves now in the middle of a program whereby we are going to say, wait a minute, I think we are going to have to take a second look. I don't want any delays

and we have got under the chemical weapons convention to destroy the stockpile under a time constraint. But just because there are some laws out there, you can't even study transportation, I think is rather foolish. When you look at—how much of this did we take out of Europe? How much chemicals did we take out of Europe? How many tons?

Mr. PROCIV. It was about 3 percent of the stockpile. And my colleagues tell me we doubled JI stockpile basically.

Mr. BUYER. How many tons is that?

Mr. PROCIV. We would have to look that up for you.

Mr. BUYER. Just give me a guess, 10 tons, 12 tons, 30 tons? I don't know. A thousand tons?

Mr. DECKER. Something under a thousand.

Mr. BUYER. Something under a thousand tons?

Mr. DECKER. Something under a thousand, 750, 800.

Mr. BUYER. That is fine. When we moved this out of Europe, how did we move it? Truck, rail, and then by air?

Mr. PROCIV. Truck, rail, and ship.

Mr. BUYER. Truck, rail, and ship. All three means. And when we moved it out of Europe, were there any transportation problems?

Mr. PROCIV. Sir, it went off without incident, sir.

Mr. BUYER. Went off without incident. And how long did it take to transport this out of Europe, from beginning to end?

Mr. PROCIV. Truck and rail was relatively short. By ship, we had to go around the African cape because we couldn't get another path. We had to go all the way around.

Mr. BUYER. OK. From beginning to end, how long did it take to move it out of Europe to Johnston Island without incident?

Mr. PROCIV. The total exercise took about a year, with about 6 months being the actual transport period.

Mr. BUYER. OK. Now let me ask the next follow-up question. Tell me what kind of cost was it to move all of this out of Europe to Johnston Island, the 3 percent?

Mr. PROCIV. Seventeen million dollars.

Mr. BUYER. Seventeen million. You know, we have to stop here and think—Mr. Chairman, can I—

Mr. HUNTER. Yes.

Mr. BUYER. Is that what we did under the cold war scenario?

Today, I come here—you know, I was in diapers way back then—and now all of a sudden I come here and I look at this and say, you know, back then I guess based on some technologies, there was open pit burning for destruction and we were moving it on rail in the 1960's. Moving it on rail, people didn't even know. And now all of a sudden I guess we are going to say now we are in a time of peace and we are going to be shocked that we are going to begin to move and transport this kind of stuff? I think that—I don't think it is naive, Glen, to say that we should look at the issue.

Now, I would also say that, you know, if yours is, in fact, right next to a metropolitan area, why should we say just because there is a timeline that makes yours second, how come yours has to be second? You know, if we are going to take a—stop and do the evaluation, why do I have to say Alabama has to be second? I am not going to buy into some timeline based upon some other, some other decisions made in the past when now we are going to say this is

going to mushroom to the cost where it becomes unrealistic. I think it is wise for us to continue on the neutralization alternative technologies, but I don't think it is naive, Glen, for us to stop.

I think Mr. Sisisky hit it right on the head by being brave and courageous and making his opening comment. Let me just yield back to the Chairman and look forward to further testimony. Thank you, gentlemen.

Mr. HUNTER. Mr. Gilchrest, you had a very short question. Then we are going to move to our second panel.

Mr. GILCHREST. Thank you, Mr. Chairman.

Just a quick comment the General made in reference to withering fire and a British unit being shot at. He may feel that way now, I guess.

Let's just put that analogy out there and you are under this withering fire. When I was in Vietnam and we were under withering fire, we graciously accepted help, Naval gunfire, air support, artillery. So what I would like to throw out, you mentioned that, each one of you, the word "flexibility." Apparently you are stuck in concrete and inflexible to do anything other than what you were ordered to do some years ago. We have some alternative technology, which I really hope is promising—neutralization, biodegradation and things like that.

As we go through this process of the hearings, it might be useful for you to give us some idea about the kind of flexibility which would enhance the process for getting rid of all this stuff with the least problem—and that is pretty tough—to Members' districts, who are worried about, quite honestly, having stuff from everything east of the Mississippi going to West Virginia and everything west of the Mississippi going to Utah. So whatever flexibility it takes to continue, you have to stay steady on, but we would like to be out here and help you do it.

Thank you, Mr. Chairman.

Mr. HUNTER. I thank the gentleman. And the gentleman from Arkansas, Mr. Dickey, had a question. And this is a chance for Members to ask a question of this panel. So thank you for being with us, Jay, and go right ahead.

Mr. DICKEY. Thank you, Mr. Chairman.

I have the Pine Bluff arsenal in my district, as at least one of you all knows. I would like to ask this question: What is the Army doing to verify that the M55 stockpile is unstable?

General ORTON. We have an effort under way to assess—a follow-up effort—to assess the stability of the stockpile as it is in storage. Part of that is—a good part of it—is focused on assessing the M55 rockets.

As I mentioned in the earlier part of my review, we have—we are taking samples, for instance, out of leaker rockets on Johnston Island to be used in the chemical studies that are necessary to evaluate the impact of agent on the propellant in the rockets themselves. So we are continuing the action to attempt to assess M55 stability in storage.

Mr. DICKEY. How long do you think it is going to take?

General ORTON. We have not been successful at being able to come up with a firm date of its stability in the long haul. It is tough science, to be quite honest, and we have had several folks

take good looks at it. The consensus, if we can build any out of this, is that the odds are reasonably good that it is stable through the year 2013. Beyond that, we can't tell you. We don't know one way or another.

The first panel that I sat on with this back in 1982, a Nobel laureate chemist headed that, and his conclusion was we don't know what the risk is, it is just not going to get better.

Mr. DICKEY. When you give a date of, what, 2013, did you say?

General ORTON. Yes, sir.

Mr. DICKEY. Is that—does that include a manufacturing date? I mean, is that—is that for all M55 rockets, no matter when they were manufactured?

General ORTON. No, it is not. They were all manufactured in a relatively short time span.

Mr. DICKEY. OK.

General ORTON. It varies.

Mr. PROCIV. They are all about 40 years old.

Mr. DECKER. Mr. Chairman, could I make one other comment to the gentleman's question? It is tough science. Deterioration rates and impacts of potential leakage of agent into the propellant, you can do a lot of chemical analysis, and based on that you can model. Then based on a sampling of how old the things are where you have had an incident, you gather statistics.

The concern is that it is a statistical process. What you say is that with perhaps three sigma, that in a large part of the population of about 400,000 rockets, with about three sigma, there is a very high assurance you won't have any incidents in this period. But with 400,000 rockets, you might have one four-sigma occurrence. That is the way the laws of statistics work. And one can be bad news. So we are concerned about the rockets more than any other thing. It is that kind of phenomenon and you just can't change that.

Mr. DICKEY. Well, I don't want that one in Pine Bluff, AR.

Mr. DECKER. I know you don't. We don't want that one any place.

Mr. HUNTER. I thank the gentlemen, and if there are no other questions of this panel, they will be back to answer questions that arise during the next several panels.

Thank you, gentlemen, for your initial presentation here.

Mr. HUNTER. We now have David Warren, who is the Director of Defense Management and NASA Issues for GAO.

David, without objection, your statement will be entered into the record.

He is going to talk a little bit about where we stand now with respect to cost and performance concerns that GAO has had in the past with this program, and some other issues. So, David, the floor is yours and thanks for being with us.

STATEMENT OF DAVID R. WARREN, DIRECTOR, DEFENSE MANAGEMENT AND NASA ISSUES, GENERAL ACCOUNTING OFFICE; ACCOMPANIED BY GLEN FURBISH AND TOM HOWARD

Mr. WARREN. I have Mr. Furbish and Mr. Howard with me.

Mr. HUNTER. That is fine.

Mr. WARREN. Mr. Chairman, I am pleased to be here today to discuss our work—

Mr. HUNTER. Get that mike a little closer, if you could.

Mr. WARREN [continuing]. Concerning the Department of Defense National U.S. Chemical Stockpile Disposal Program.

Our work over the last several years has focused on a number of interrelated issues involving cost, schedule, and performance; environmental permitting; stability of the chemical weapons stockpile; emergency preparedness programs with the communities; and alternative technologies.

Overall, the results of our work shows that DOD has experienced cost growth and delays in executing the disposal plan since 1985. The Army's cost estimate to destroy the chemical weapons stockpile has increased from \$1.7 billion to \$11.9 billion. You have already heard that number. And the disposal itself, the schedule has gone from, September of 1994 to April of 2004. These are because of cost growth and schedule delays.

DOD has recently taken some encouraging actions and they have already talked about putting this under the DAB process. We think that is a critical step in terms of getting this oversight that is needed to this program and to get at the issue that Mr. Sisisky raised in terms of whether or not cost growth is going to continue.

Notwithstanding that action, there are several others that we are concerned about. First, although the program started 10 years ago, only two of the nine plants have actually been constructed and the only one that is in operation today is the one at Johnston Island. It has already been mentioned that \$3 billion have been appropriated for the program thus far, but only 2 percent of the stockpile itself has actually been destroyed. What that tells the committee is certainly there is a long way to go with this particular program.

Second is we think the disposal program will likely experience further cost growth and schedule delays primarily because of uncertainties regarding environmental requirements; we have already heard some discussion about that; public opposition to incineration, which has been discussed as well; and then the need to incorporate lessons learned from the Johnston Island facility into the facility at Tooele, and then other follow-on facilities that will be built here in the United States. By way of example, only seven of the nine facilities that are to be constructed have received all the necessary permits that they would need for operation of these particular plants; also, public opposition to the disposal program and incineration in particular exists in varying degrees at all planned sites.

An Army cost analysis study in 1994 indicates that in order to deal with these factors the cost of the program may be driven up as high as \$12.9 billion. As I am sure you will hear later, the Army is in the process of preparing an updated cost and schedule estimate for the program, and that is to be ready in December 1995 we are told.

Third, and this has been discussed as well, the storage of the M55 rockets pose the largest safety risk. However, the Army lacks information to predict the safe storage life of the rocket. The M55 is the only rocket in the stockpile that cannot be readily reconfigured to remove the propellant to help prevent reactions that could lead to a spontaneous ignition. For some of the other munitions in the stockpile that propellant, can be removed and some of the risk associated with the storage reduced.

Obviously, the stability of these rockets is a concern because now it appears that they may have to hold on to these items longer than was initially thought. To its credit, the Army is taking actions to obtain better information on assessing the stability of the rockets. And we think that is an important move.

Fourth, the Army's emergency preparedness program, CSEPP, which was established in 1988 to help communities near the eight storage sites to improve their capabilities to respond to emergency events, has experienced problems.

The Army and the Federal Emergency Management Agency, [FEMA], share responsibility for the management of this program. However, our work has shown that CSEPP has been slow to achieve results in its programs. Financial management and internal control systems have been weak.

Our prior work has also shown that communities near the storage sites were not fully prepared to respond to chemical emergencies. At that time we saw about \$200 million in expenditures and activities for these sites did not have basic things like tone alert radios and sirens. We were told recently, for example, that Aberdeen, MD, is still without alert sirens, some of the very basic items that the program had identified as being needed to provide this assistance.

Also, the Army and FEMA officials lack adequate financial information to identify how funds were spent and to ensure that program goals were achieved. In response to congressional guidance and our recommendations, again the Army and FEMA have taken a number of actions in this area. We are encouraged by the things that they have done to gain better control.

Last, it is important to note that the Army is looking at alternatives, and there has been some discussion about that as well. However, I think it is also important to point out that as we understand it, none of these technologies would be available and operational in time to meet the current deadline of 2004. And that is another constraint that is out there that we didn't talk about in the earlier panel, but that is a constraint that has legislatively been put on the program.

In closing, let me emphasize that the disposal program is costly. It is a costly undertaking, and presents many difficult management challenges. At the same time, as I said, we are encouraged by what the Department of Defense has been doing, particularly over the last 8 months, and we also think that the type of oversight that is being provided by the committee today is extremely important to getting a handle on this particular program and providing the assistance and guidance that is needed.

With that, I would be happy to respond to any questions you Members might have.

Mr. HUNTER. OK. Thank you, Mr. Warren. Appreciate it.

United States General Accounting Office

GAO

Testimony

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Committee on National Security, House of
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**CHEMICAL WEAPONS
DISPOSAL**

**Issues Related to DOD's
Management**

Statement of David R. Warren, Director, Defense
Management and NASA Issues, National Security and
International Affairs Division

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss our work concerning the Department of Defense's (DOD) management of the U.S. chemical stockpile disposal program. DOD plans to dispose of more than 29,000 metric tons of lethal chemical agents and weapons stockpiled at eight sites in the continental United States and one site on Johnston Atoll in the Pacific. DOD's latest cost estimate for the disposal program is \$11.9 billion. Our work over the last several years has focused on a number of interrelated issues involving (1) cost, schedule, and performance; (2) environmental permitting; (3) stability of the chemical stockpile; (4) emergency preparedness of communities located near the stockpile; and (5) alternative disposal technologies. Enclosure I provides a listing of our products related to the chemical stockpile disposal program. As you requested, I will summarize the results of our work.

SUMMARY OF RESULTS

DOD has experienced significant cost growth and delays in executing its disposal plan. Since 1985, the Army's cost estimate to destroy the chemical weapons stockpile has increased from an initial estimate of \$1.7 billion to \$11.9 billion, and the planned completion date has been extended from September 1994 to April 2004. Because of the cost growth, schedule delays, and importance of the issue, DOD has recently taken some encouraging steps to

improve its management and oversight of the disposal program. For example, DOD has (1) designated the program as a major acquisition to improve cost and schedule controls, (2) designated the Assistant Secretary of the Army (Research, Development and Acquisition) as the program's executive agent to elevate the financial management and review process, (3) initiated actions to reassess the stability of chemical weapons, and (4) restructured and centralized its Chemical Stockpile Emergency Preparedness Program (CSEPP) to streamline procedures and improve the budgeting process. Notwithstanding these actions, there are still a number of areas that are of concern:

- To date, two of nine planned incinerators have been built and only one of the two, at Johnston Atoll, is operational. Although approximately \$2 billion has been spent on the program, only two percent of the stockpile has been destroyed.
- The Army continues to experience added program requirements, public opposition, and technical and programmatic problems.¹ As a result, the program is at risk of further cost growth and schedule slippage. The Army plans to issue a revised life-cycle cost estimate and disposal schedule in December 1995.

¹The Department of the Army is DOD's lead military service for chemical matters.

- Although the storage of the M55 rocket poses the largest safety risk, the Army lacks information to predict the safe storage life of the rocket.
- Although the Army has spent more than \$300 million on CSEPP since 1988, communities near the storage sites are not yet fully prepared to respond to a chemical emergency. The Army now estimates that CSEPP will cost almost \$975 million through 2004.
- The Army is researching, at an estimated cost of \$224 million, two alternatives to the baseline incineration process-- neutralization and neutralization followed by biodegradation. However, program officials have stated that even if successful, neither technology could be ready in time to meet the current disposal deadline of December 31, 2004.

BACKGROUND

In 1985, the Congress passed Public Law 99-145 directing DOD to destroy its stockpile of unitary chemical weapons and agents. The stockpile consists of rockets, bombs, projectiles, spray tanks, and bulk containers of nerve and mustard agents. The weapons and agents are stored at eight sites in the continental United States and one site on Johnston Atoll in the Pacific.² To comply with

²The continental locations are Aberdeen Proving Ground, Maryland; Anniston Army Depot, Alabama; Blue Grass Army Depot, Kentucky; Newport Ammunition Plant, Indiana; Pine Bluff Arsenal, Arkansas;

congressional direction, the Army developed a plan to dispose of the stockpile in specially designed high-temperature incinerators. The reverse assembly and incineration disposal process is mostly automated and is executed in three stages: (1) unpacking, (2) disassembling and draining, and (3) incinerating.

In 1988, the Army established CSEPP to assist communities near the eight storage sites in the continental United States improve their emergency response capabilities. Threats to the chemical stockpile include external events such as earthquakes, airplane crashes, and tornadoes and internal events such as spontaneous leakage of chemical agents, accidents during normal handling and maintenance activities, and self-ignition of propellant. The effect of an accidental chemical release on a nearby community would depend on such things as the amount and type of agent released, meteorological conditions, and the community's proximity to the storage location. The number of people living within the immediate response zone (10 kilometers or 6.2 miles) of the chemical weapons storage sites ranges from 101 in Tooele, Utah, to 44,054 in Aberdeen, Maryland.³ Under a memorandum of understanding, the Army shares management of CSEPP with the Federal Emergency Management Agency (FEMA). State and local officials, in accordance with state

Pueblo Depot Activity, Colorado; Tooele Army Depot, Utah; and Umatilla Depot Activity, Oregon.

³Ten kilometers roughly corresponds to the area that has less than one hour to respond to a chemical agent release. This area, called an immediate response zone, varies by storage site.

laws, have primary responsibility for developing and implementing emergency response programs for communities in the event of an emergency involving chemical agents.

In 1993, the United States signed the U.N.-sponsored Convention on the Prohibition of the Development, Production, Stockpiling and the Use of Chemical Weapons and on Their Destruction, commonly called the Chemical Weapons Convention. Under the treaty, signatories must dispose of their unitary chemical weapons stockpile, binary chemical weapons, recovered chemical weapons, and former chemical weapons production facilities within 10 years after entering into force. The convention becomes effective 180 days after the 65th nation deposits its instrument of ratification. As of March 29, 1995, 158 countries had signed the convention and 27 countries had ratified it. The President submitted the convention to the U.S. Senate for its advice and consent to ratification on November 30, 1993.

Enclosure II provides a chronology of the U.S. chemical stockpile disposal program.

POSSIBILITY OF FURTHER COST
GROWTH AND SCHEDULE SLIPPAGE

Since 1985, the Army's cost estimate to destroy the chemical weapons stockpile has increased seven fold from an initial estimate

of \$1.7 billion to its current \$11.9 billion estimate, and the completion date has been extended almost 10 years, from September 1994 to April 2004. Reasons for the cost increases and schedule delays include (1) program enhancements to respond to concerns for the maximized safety of personnel and the public; (2) delays in completing the Operational Verification Test at the Johnston Atoll Chemical Agent Disposal System (JACADS); (3) persistent technical problems resulting in lower than expected disposal rates; (4) requirements to clean, dismantle, and dispose of the plants; and (5) implementation of the National Research Council's recommendations to improve filtration systems.

The Army's \$11.9 billion estimate is at risk of increasing because of (1) uncertainties regarding environmental requirements, (2) potential schedule delays resulting from public opposition to incineration, and (3) lower than expected disposal rates at the prototype facility at Johnston Atoll. An October 1994 Army Cost and Economic Analysis Center review indicates that these factors could drive programmatic costs as high as \$12.9 billion. The Army plans to issue a revised life-cycle cost estimate and disposal schedule in December 1995. Enclosure III provides appropriation and expenditure data for the program for fiscal years 1988 through 1995.

Actions to Respond to
Environmental Requirements
Could Extend the Disposal Schedule

Changes to environmental compliance requirements under the Resource Conservation and Recovery Act (RCRA) and state hazardous waste laws have caused the Army to revise its disposal schedule and life-cycle cost estimates. Army program officials reported in September 1994 that environmental permitting was the single area most likely to affect planned program schedules because of uncertainties about changing regulations. The Army must obtain RCRA and Clean Air Act permits from each state with proposed incineration sites before beginning construction. Under the RCRA, state governments may establish regulations that are more stringent than federal standards. For example, Kentucky and Indiana have enacted legislation requiring the Army to demonstrate the absence of any acute or chronic health or environmental effects from chemical incineration before an environmental permit will be granted. According to the Centers for Disease Control, a 30-year epidemiological study would be required to meet that requirement.

Environmental permitting at the Anniston Army Depot, Alabama, may be delayed because of the recommended closure of Fort McClellan, which borders the Anniston Army Depot to the north. The Alabama Department of Environmental Management has stated that it cannot issue environmental permits to construct and operate the Anniston

facility unless the Army demonstrates that adequate emergency response capabilities are in place. While Fort McClellan has previously been cited as the source for any contingency response, plans for the closure emphasize that it is the Army, not necessarily the fort, that is responsible for formulating a contingency response plan acceptable to the State of Alabama. The Army is developing plans to handle emergency response for Anniston when Fort McClellan closes.

In another example, Army officials recently told us that the Hazardous Waste Reduction and Combustion Strategy established by the Environmental Protection Agency in 1993 could also extend the time required to obtain permits. This strategy increased requirements for incinerator permitting and operation without providing implementation guidance or compliance strategy. Army officials believe one requirement, the need for a health risk assessment, could add up to 24 months to the permitting schedules.

Program Delays and Actions to Respond to
Public Opposition to the
Baseline Incineration Process

Although the Army has taken actions to improve its public outreach program, public opposition to the incineration of chemical munitions or agents continues to be considerable. The opposition centers on concerns about adverse health effects and environmental

hazards. This concern comes from citizen groups and environmental organizations and has extended the environmental review and approval process and required the Army to delay its plans for the construction and operation of incinerators.

Public opposition to the disposal program exists in varying degrees at all disposal sites. The Army has taken steps to discuss with and gain input from local citizens in communities surrounding disposal sites by establishing Intergovernmental Consultation and Coordination Boards, conducting public meetings, sponsoring community based studies, and establishing Citizen Advisory Commissions in each affected state.

Nonetheless, concerns exist regarding the potential ill health effects of incineration, lack of public involvement in the decision-making processes, and lack of credibility the Army has in certain communities. A study commissioned by the Army and conducted by an independent contractor included recommendations to improve communications with the public. In 1994, the Army reported that it would implement an enhanced public outreach and involvement program and would consider the formation of site offices at each storage site.

Lower than Expected Disposal Rates at Johnston Atoll

The prototype facility at Johnston Atoll is the Army's first full-scale chemical disposal facility. The facility uses an automated, reverse assembly and incineration disposal process. Since beginning operations in June 1990 through May 1995, JACADS has destroyed about 108,000 rockets, projectiles, and ton containers. However, JACADS's operational testing took longer than expected and did not achieve the anticipated goals. Similarly, JACADS' disposal rates during full-scale operations have been less than expected. As a result, destruction will take longer than planned, and the Army's current cost estimate could be understated by as much as \$348 million.

The Army conducted four operational testing campaigns to demonstrate that chemical weapons could be incinerated within Environmental Protection Agency standards and to assess the reliability of the mechanical process. The testing was originally scheduled to take 16 months, but it was extended to 31 months when the Army experienced difficulties such as a detonation inside one of the furnaces, jamming of a munitions conveyor, and problems accessing agent from projectiles. As a result, the Army did not achieve its destruction rate goals, destroying 17 rockets per hour compared to a goal of 24 rockets per hour, and 35 projectiles per hour compared to a goal of 56 projectiles per hour.

Based on the rates achieved during testing, the Army extended its planned operating schedules thereby reducing anticipated destruction rates for JACADS and future sites. The projected rocket destruction rate was lowered to about 10 rockets per hour. However, we have found that the facility has not achieved these lower goals, destroying an average of seven rockets per hour from January 1994 to May 1995. Reasons for the low destruction rates include reduced operational availability due to a detonation inside the facility and buildup of a glassy slag material inside the liquid agent incinerator. The Army has developed design changes to address the mechanical difficulties; however, some will not be tested until the disposal facility at Tooele Army Depot, Utah, begins operations. That facility is currently conducting nontoxic tests of the plant's systems.

Steps Taken to Improve the Management
Of the Chemical Disposal Program

Although the program has experienced problems in the past, DOD has recently taken some encouraging steps to improve management and oversight of the stockpile disposal program. Because of increasing disposal costs and schedule slippage, changing legislative and regulatory requirements, and growing public opposition, DOD designated the Army's chemical disposal program as a major defense acquisition program. The designation changed management responsibility from the Assistant Secretary of the Army

(Installations, Logistics and Environment) to the Assistant Secretary of the Army (Research, Development and Acquisition) and was intended to (1) stabilize the disposal schedule, (2) control costs, and (3) provide more discipline and higher levels of program oversight. As such, the Army will be required to

- develop a program cost and schedule baseline;
- prepare quarterly defense acquisition executive summaries, which are intended to provide an early warning that the baseline may be exceeded; and
- submit an annual selected acquisition report to the Congress, which includes variances from the program baseline schedule and cost.

STABILITY OF THE STOCKPILE IS UNCERTAIN

The stability of the stockpile is another area of concern because the Army continues to experience delays in implementing its disposal program and may have to store the stockpile longer than planned. The Fiscal Year 1993 Defense Authorization Act required the Army to report on the physical and chemical integrity of the stockpile. In December 1994, we reported that the Army's assessment that the chemical stockpile can be safely stored until 2004 is subject to question based on the nature of the supporting information.⁴ The data on which the Army based its assessment were old and may no longer represent the chemical weapons in storage. For example, at that time, no field samples of the M55 rocket propellant had been taken since 1989. In addition, the assessment did not include an analysis of leaking munitions. Leaks increase the risk of self ignition during handling. The M55 rocket is most prone to leaks and poses the largest safety hazard in the stockpile. These munitions are stored at Anniston Army Depot, Alabama; Blue Grass Army Depot, Kentucky; Pine Bluff Arsenal, Arkansas; Tooele Army Depot, Utah; and Umatilla Depot Activity, Oregon. Enclosure IV identifies weapons and agents stored at each site.

⁴Chemical Weapons: Stability of the U.S. Stockpile (GAO/NSIAD-95-67, Dec. 22, 1994).

In addition, a contingency plan for disposal of the rocket is needed because it is the only weapon in the stockpile that cannot readily be reconfigured to remove its propellant.⁵ Propellant is inherently unstable and must be stabilized to help prevent reactions that could lead to a spontaneous ignition. Manufacturers add stabilizing compounds, but they deteriorate over time. All munitions with propellant, except the M55 rocket, are to have their propellants removed by 1998.

Recent Army initiatives to obtain better information to predict the safe storage life of the M55 rocket are encouraging. For example, the Army initiated an Enhanced Stockpile Assessment Program to determine the effects of an agent on a propellant, identify the most appropriate predictive methodology, develop sampling plans, and perform periodic assessments. The Army is also studying the integrity of the plugs and valves on the mustard-filled ton containers.

THE ARMY'S EMERGENCY PREPAREDNESS PROGRAM
HAS BEEN SLOW TO ACHIEVE RESULTS

The Army established CSEPP to help those communities near the eight storage sites in the continental United States improve their

⁵At the Tooele Army Depot, reconfiguration activities (separation of propellant from agent-filled munitions) for 105mm projectiles and 4.2 inch mortars have been completed. According to the Army, reconfiguration enhances the safe storage of the munitions pending their disposal.

emergency response capabilities to a chemical accident. Enclosure V identifies the locations of these sites. Our work has shown that CSEPP has been slow to achieve results and that the program's financial management and internal control systems have weaknesses. For example, in 1994 we reported that communities near the storage sites were not fully prepared to respond to a chemical emergency.⁶ In 1995, we reported that because of weaknesses in CSEPP's financial management reporting and internal control systems, Army and FEMA officials lack accurate financial information to identify how funds are spent and ensure program goals are achieved.⁷ The Army now estimates that life-cycle costs for CSEPP will be almost \$975 million.

Communities Were Not Fully Prepared to
Respond to a Chemical Emergency

In our 1994 report, we stated that communities near chemical weapons storage sites were not yet prepared to respond to a chemical emergency. For example, the communities were unable to complete their plans and preparations because the Army and FEMA had not fully identified the risks of an accidental release to nearby communities. Also, communities lacked some items identified by

⁶Chemical Weapon Stockpile: Army's Emergency Preparedness Program Has Been Slow to Achieve Results (GAO/NSIAD-94-91, Feb. 22, 1994).

⁷Chemical Weapons: Army's Emergency Preparedness Program Has Financial Management Weaknesses (GAO/NSIAD-95-94, Mar. 15, 1995).

CSEPP officials as critical to an emergency response. This included items such as alert and notification devices, antidotes, decontamination equipment, emergency operations centers, evacuee support systems, final automation systems, protective gear ensembles, and traffic and access control plans.

In a follow-up report in March 1995, we reported that some readiness problems continued. For example, although CSEPP funds have been used for priority items, not all essential items are operational or have been purchased at four sites that we visited.

Weaknesses in Financial Management
and Internal Control Systems

In both our 1994 and 1995 reports, we noted that program officials were hampered by inadequate financial information and that CSEPP's financial management and organization needed improvements. For example, Army and FEMA officials lack accurate financial information to identify how funds are spent and ensure program goals are achieved. Specifically, our reviews showed that (1) CSEPP allocation and expenditure data were inaccurate, inconsistent, or incomplete; (2) FEMA's reports to the Army were incomplete and inconsistent; and (3) some states reprogrammed funds without the knowledge of federal officials. Although program managers have recognized the need to improve CSEPP's financial management, in 1994 they still could not provide us complete or

accurate financial data. Adequate internal controls to ensure assets are safeguarded and program goals are efficiently and effectively achieved did not exist.

Recent Improvements in the
Management of CSEPP

In response to congressional guidance and our 1995 report on CSEPP, the Army took actions to improve program management and accountability of the program. For example, the Army restructured the overall management of CSEPP and established a centralized office in the U.S. Army Chemical and Biological Defense Command. It also streamlined procedures, took actions to improve responsiveness to the states and counties, and enhanced the budget process. In addition, Army officials are working to improve CSEPP's financial management and internal controls.

ALTERNATIVE DISPOSAL TECHNOLOGY PROGRAM

As a result of growing opposition to incineration, the Congress, in the Fiscal Year 1993 Defense Authorization Act, directed the Army to submit a report on potential technological alternatives to chemical weapons incineration. The Congress provided three criteria for the implementation of the Army's alternative technology program--that the alternative must be significantly safer, cost neutral, and able to complete the disposal program by

the end of 2004. In April 1994, the Army recommended the continuation of the chemical disposal program without deliberate delay and the implementation of a two-technology research and development program. As a result, the Army is researching neutralization, and neutralization followed by biodegradation at an estimated life-cycle cost of \$224 million. However, program officials have expressed concern that neither technology will be ready in time to meet the current deadline of December 31, 2004.

In our 1994 report on chemical weapons destruction methods, we concluded that alternative technologies were unlikely to reach maturity in time to destroy the chemical weapons stockpile because they were in the initial development stages and over a decade away from full operations.⁸ The Environmental Protection Agency has stated that any proposed chemical disposal technology would have to undergo analysis and evaluation similar to the incineration process.

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This concludes my statement, Mr. Chairman. I would be pleased to answer any questions that you or other members of the Subcommittee may have.

⁸Chemical Weapons Destruction: Advantages and Disadvantages of Alternatives to Incineration (GAO/NSIAD-94-123, Mar. 18, 1994).

ENCLOSURE I

RELATED GAO PRODUCTS

Chemical Weapons: Army's Emergency Preparedness Program Has Financial Management Weaknesses (GAO/NSIAD-95-94, Mar. 15, 1995).

Chemical Stockpile Disposal Program Review (GAO/NSIAD-95-66R, Jan. 12, 1995).

Chemical Weapons: Stability of the U.S. Stockpile (GAO/NSIAD-95-67, Dec. 22, 1994).

Chemical Weapons Disposal: Plans for Nonstockpile Chemical Warfare Materiel Can Be Improved (GAO/NSIAD-95-55, Dec. 20, 1994).

Chemical Weapons: Issues Involving Destruction Technologies (GAO/T-NSIAD-94-159, Apr. 26, 1994).

Chemical Weapons Destruction: Advantages and Disadvantages of Alternatives to Incineration (GAO/NSIAD-94-123, Mar. 18, 1994).

Arms Control: Status of U.S.-Russian Agreements and the Chemical Weapons Convention (GAO/NSIAD-94-136, Mar. 15, 1994).

Chemical Weapon Stockpile: Army's Emergency Preparedness Program Has Been Slow to Achieve Results (GAO/NSIAD-94-91, Feb. 22, 1994).

Chemical Weapons Storage: Communities Are Not Prepared to Respond to Emergencies (GAO/T-NSIAD-93-18, July 16, 1993).

Chemical Weapons Destruction: Issues Affecting Program Cost, Schedule, and Performance (GAO/NSIAD-93-50, Jan. 21, 1993).

Chemical Weapons Destruction: Issues Related to Environmental Permitting and Testing Experience (GAO/T-NSIAD-92-43, June 16, 1992).

Chemical Weapons Disposal (GAO/NSIAD-92-219R, May 14, 1992).

Chemical Weapons: Stockpile Destruction Cost Growth and Schedule Slippages Are Likely to Continue (GAO/NSIAD-92-18, Nov. 20, 1991).

ENCLOSURE II

CHRONOLOGY OF THE U.S. CHEMICAL
STOCKPILE DISPOSAL PROGRAM

Time frame	Activity
1910s-1960s	Obsolete or unserviceable chemical warfare agents and munitions were disposed of by open pit burning, land burial, and ocean dumping.
1969	The National Academy of Sciences (NAS) recommended that ocean dumping be avoided and that public health and environmental protection be emphasized. NAS suggested two alternatives to ocean disposal: chemical neutralization of nerve agents and incineration of mustard agents.
1970	The Armed Forces Appropriation Act (P.L. 91-441) required detoxification of weapons, prior to disposal and the Department of Health and Human Services review of any disposal plans. It also limited the movement of chemical weapons.
1971	The Foreign Military Sales Act prohibited the transportation of U.S. chemical weapons from Okinawa, Japan, to the continental U.S. The weapons were moved to Johnston Atoll.
1971-1973	The Army tested and developed an incineration process and disposed of several tons of mustard agent stored in ton containers at Rocky Mountain Arsenal, Colorado.
1973-1976	The Army disposed of nearly 4,200 tons of nerve agent by chemical neutralization at Tooele Army Depot, Utah, and Rocky Mountain Arsenal. The process was problematic and not very reproducible, making automation difficult.
1979	The Army opened the Chemical Agent Munitions Disposal System (CAMDS) at Tooele Army Depot to test and evaluate disposal equipment and processes for chemical agents and munitions on a pilot scale.
1981	The Army chose high temperature incineration as the best and safest method for destroying chemical weapons and agents.
1981-1986	The Army used CAMDS to test and evaluate incineration of chemical agents and energetic materiel, and decontamination of metal parts and ton containers.
1982	An Arthur D. Little Corporation study for the Army concluded that incineration, rather than neutralization, of the stockpile would reduce costs.
1982	The Army declared its stockpile of M55 rockets obsolete.
1984	The NAS National Research Council endorsed the Army's disassembly and high-temperature incineration process for disposing of chemical agents and munitions. The council also recommended that the Army continue to store most of the chemical stockpile, dispose of the M55 rockets, and analyze alternative methods for disposing of the remaining chemical stockpile.

ENCLOSURE II

Time frame	Activity
1985	The Army began constructing the Johnston Atoll Chemical Agent Disposal System.
1985	The Department of Defense Authorization Act for Fiscal Year 1986 (P.L. 99-145) mandated the destruction of the U.S. stockpile of lethal chemical agents and munitions. It also required the disposal facilities to be cleaned, dismantled, and disposed of according to applicable laws and regulations.
1986	The National Defense Authorization Act for Fiscal Year 1987 (P.L. 99-500) prohibits shipments of chemical weapons, components, or agents to the Blue Grass Depot Activity for any purpose.
1987	CAMDS operations were suspended at the Tooele Army Depot as a result of a low-level nerve agent release.
1988	The Army issued the Final Programmatic Environmental Impact Statement for the Chemical Stockpile Disposal Program. The Army selected on-site disposal of the stockpile because it posed fewer potential risks than transportation and off-site disposal.
1988	The Chemical Stockpile Emergency Preparedness Program was established to improve emergency response capabilities in communities near the eight sites in the continental U.S. where chemical weapons are stored.
1988	The National Defense Act of Fiscal Year 1989 (P.L. 100-456) required the Army to complete operational verification testing at Johnston Atoll before beginning to systematize similar disposal facilities in the continental United States.
1989	The Army started construction of the chemical disposal facility at Tooele Army Depot.
1990	The Army completed the successful retrograde of all chemical munitions stored in Germany to storage facilities at Johnston Atoll.
1990	A very small amount of nerve agent leaked from JACADS.
1990-1993	The Army completed four operational verification tests at JACADS. During the tests, the Army destroyed more than 40,000 munitions containing nerve and mustard agents. In August 1993, the Secretary of Defense certified to Congress that the Army successfully completed the operational verification tests at JACADS.
1991	The National Defense Authorization Act for Fiscal Year 1991 (P.L. 101-510) restricted the use of funds to transport chemical weapons to Johnston Atoll, except for U.S. munitions discovered in the Pacific, prohibited the Army from studying the movement of chemical munitions, and established the emergency preparedness program.
1991	The Army moves 109 World War II mustard-filled projectiles from the Solomon Islands to Johnston Atoll for storage and disposal.
1991	The National Defense Authorization Act for Fiscal Years 1992 and 1993 (P.L. 102-190) required the Secretary of Defense to develop a chemical weapons stockpile safety contingency plan.

ENCLOSURE II

Time frame	Activity
1992	The U.S. Army Chemical Materiel Destruction Agency was established to consolidate operational responsibility for the destruction of chemical warfare capabilities into one office.
1992	The National Defense Authorization Act for Fiscal Year 1993 (P.L. 102-484) directed the Army to establish citizens' commissions for states with storage sites, if a state's governor requested one. It also required the Army to report on disposal alternatives to the baseline incineration method.
1993	JACADS was shutdown due to a fire during operational verification testing.
1993	The Army completed construction and started systemization of the Tooele chemical agent disposal facility.
1993	The Army issued its report on the physical and chemical integrity of the chemical stockpile to the Congress.
1993	A mustard leak from a ton container was discovered at Tooele Army Depot.
1994	Approximately 11.6 milligrams of nerve agent were released into the atmosphere at JACADS.
1994	The NAS's National Research Council issued its recommendations for the disposal of chemical agents and munitions to the Army.
1994	The Army issued its alternative demilitarization technology report to the Congress. The Army recommended the continuation of the chemical disposal program without deliberate delay and the implementation of a two-technology research and development program.
1994	The Army issued its M55 rocket stability report to the Congress. The report recommended that an enhanced stockpile assessment program be initiated to better characterize the state of the M55 rocket in the stockpile.
1994	The U.S. Army Chemical Materiel Destruction Agency was redesignated the U.S. Army Chemical Demilitarization and Remediation Activity after a merger with the U.S. Army Chemical and Biological Defense Command. In addition, the Army restructured and centralized its chemical stockpile emergency preparedness program to streamline procedures, improve responsiveness of operations, and improve the budgeting process.
1994	The Assistant Secretary of the Army for Research, Development and Acquisition became the Department of Defense Executive Agent for the Chemical Demilitarization Program, replacing the Assistant Secretary of the Army for Installations, Logistics, and Environment. The Chemical Demilitarization Program was designated a DOD Acquisition Category 1D Program.

ENCLOSURE III

APPROPRIATED, OBLIGATED, AND DISBURSEMENT DATA
FOR FISCAL YEARS 1988 THROUGH 1995

Table III.1: Chemical Stockpile Disposal Program

(Dollars in millions)

Fiscal year	Appropriated	Obligated	Expended
1988	\$195.8	\$194.3	\$192.9
1989	233.7	230.5	229.5
1990	210.5	208.6	196.8
1991	331.3	323.4	310.1
1992	463.7	426.9	380.1
1993	469.5	417.9	247.7
1994	356.1	240.1	208.1
1995	501.2	223.2	55.8
Total	\$2761.8	\$2,264.9	\$1,821.0

Note: As of May 31, 1995.

Table III.2: Alternative Technology Program

(Dollars in millions)

Fiscal year	Appropriated	Obligated	Expended
1994	\$20.7	\$11.4	\$3.5
1995	9.4	0.0	0.0
Total	\$30.1	\$11.4	\$3.5

Note: As of May 31, 1995.

Source: U.S. Army Chemical Demilitarization and Remediation Activity

ENCLOSURE III

Table III.3: Chemical Stockpile Emergency Preparedness Program

(Dollars in millions)

Fiscal year	Appropriated	Obligated	Expended
1988	\$2.5	\$2.5	\$2.5
1989	11.3	11.3	11.2
1990	43.7	43.7	42.5
1991	37.7	37.7	33.8
1992	40.9	40.4	36.2
1993	65.7	69.2	54.5
1994	79.4	71.6	59.6
1995	66.4	27.4	4.7
Total	\$347.6	\$303.8	\$245.0

Note: As of May 31, 1995.

Table III.4: Summary of All Chemical Demilitarization Programs

(Dollars in millions)

Program	Appropriated	Obligated	Expended
Chemical stockpile disposal	\$2,761.8	\$2,264.9	\$1,821.0
Alternative technology	30.1	11.4	3.5
Chemical stockpile emergency preparedness	347.6	303.8	245.0
Total	\$3,139.5	\$2,580.1	\$2,069.5

Note: As of May 31, 1995.

Source: U.S. Army Chemical Demilitarization and Remediation Activity

ENCLOSURE IV

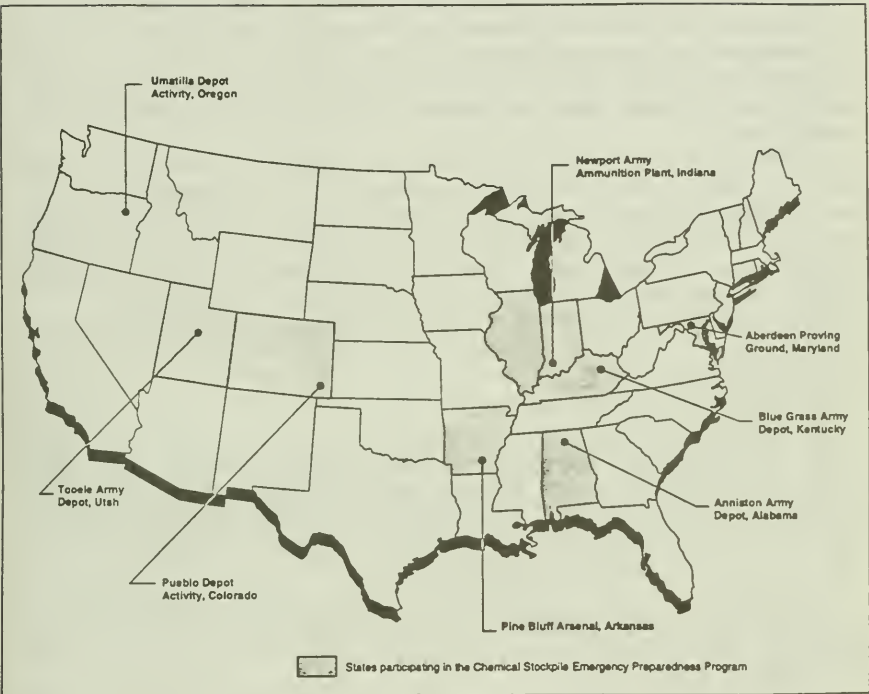
CHEMICAL STOCKPILES AND MUNITIONS AND LOCATIONS

Storage site	Weapons and agents stored	Percent of stockpile
Aberdeen Proving Ground, Maryland	Ton containers (H)	5
Anniston Army Depot, Alabama	M23 mines (VX) M55 rockets (GB&VX) Projectiles and cartridges (H,GB&VX) Ton containers (H&GB)	7
Blue Grass Army Depot, Kentucky	M55 rockets (GB&VX) Projectiles and cartridges (H&VX) Ton containers (H&VX)	2
Johnston Atoll*	Bombs (GB) M23 mines (VX) M55 rockets (GB) Projectiles and cartridges (H,GB&VX) Ton containers (H&VX)	6
Newport Ammunition Plant, Indiana	Ton containers (VX)	4
Pine Bluff Arsenal, Arkansas	M23 mines (VX) M55 rockets (GB&VX) Ton containers (H)	12
Pueblo Army Depot, Colorado	Projectiles and cartridges (H) Ton containers (H)	10
Tooele Army Depot, Utah	Bombs (GB) M23 mines (VX) M55 rockets (GB&VX) Projectiles and cartridges (H,GB&VX) Spray tanks (VX) Ton containers (H,GB&VX)	42
Umatilla Depot Activity, Oregon	Bombs (GB) M23 mines (VX) M55 rockets (GB&VX) Projectiles and cartridges (GB&VX) Spray tanks (VX) Ton containers (H,GB&VX)	12

*The amount of chemical weapons and agents stored at Johnston Atoll decreases as disposal operations continue.

ENCLOSURE V

CHEMICAL STOCKPILE LOCATIONS IN THE
CONTINENTAL UNITED STATES



(709162)

Mr. HUNTER. Basically what you are telling us is that, from your perspective, things have gotten a lot more stable with the program?

Mr. WARREN. From a management standpoint, yes, we think the oversight controls are in place now. We think it is getting adequate attention. There is periodic reporting that wasn't going on previously. There is a centralized approach to looking at the CSEPP program. Before, that was almost run by a committee type operation. It lacked focus. We think that focus is there now. And we think those should be important improvements in getting controls on those particular cost elements.

Mr. HUNTER. OK. But you didn't do any analysis with respect to more transportation and fewer sites, versus in place for all of the stockpiles?

Mr. WARREN. No, we have not. We did look at, and this was some time ago when we made the movement out of Germany, we did look at that particular activity, and our work showed that they, in fact, did do that on cost and schedule, as they had planned. But beyond that, we have not. I would say that we I guess are unique in that we are not prohibited from looking at transportation.

Mr. HUNTER. OK. You aren't prohibited from looking at transportation?

Mr. WARREN. Pardon.

Mr. HUNTER. You say you are prohibited?

Mr. WARREN. We are not.

Mr. HUNTER. You know, that was very interesting that Mr. Buyer asked for the cost of all the entire transport of the European stockpile to Johnston and Tooele. And if it was 17 million bucks, that is probably less than the amount of money we spent on lawyers in a 3-week period on this program.

Mr. WARREN. And I think that is a very important point. But I would also add, as the committee considers this, that I think there would be substantial costs associated with movements of these items across State lines.

Mr. HUNTER. Yes. It is real tough to scrape these Governors off your bug screens on these big trucks.

Mr. WARREN. The same types of issues that you are experiencing at the sites now, I think you would experience as you started out in that effort. I just can't see how that would be any different. That would be an important matter to consider.

Mr. HUNTER. OK. Let me see, I know it looks like Mr. Hansen and Mr. Browder are ready to go. Let me ask the ranking member, Ike, do you have any questions? OK, Jim.

Mr. HANSEN. Thank you, Mr. Chairman. Mr. Warren, in your statement you hit lightly upon the idea of an alternative type of technology that you had looked at. What was your statement again about that, regarding the target date?

Mr. WARREN. In other words, the destruction date is, legislatively, now is 2004. What our work showed is that any of the—we looked at eight different technologies. And those eight technologies could not be ready to meet that 2004 date. The development process, and we took a development process recommended by the NRC, showed it would take 12 to 16 years to go through the developmental process.

Now, I know that sounds like a long time, but again, I think we have to keep in mind that just as the baseline process had to go through a series of permitting processes, other regulatory checks and balances, any of these new technologies I think it is a fair assumption to say that they would be held to the same level of scrutiny. So that is—and again, I think it is important not to—I am not at all saying to rule that out, I am just saying that there is a time frame associated with it, and as long as you have the 2004 as a drop dead date, so to speak, then that becomes a constraining factor. It starts to mitigate against your alternative technology.

Mr. HANSEN. I think Secretary Decker very wisely pointed out the idea that safety was a No. 1 concern, and therefore you add a lot of years and time and effort and technology and experimentation whenever you look at one of these things.

You aptly pointed out the idea that baseline technology, being very familiar with that because it was done in my home State, the district I represent, at CAMDS we went in the early 1970's in that area and did all of that work and went on and on and on, and there are reams of people talking about the studies before they did Johnston Island, before they did Tooele. So if we have some alternative coming along, and don't get me wrong, I may sound like I am sour grapes on it, I am just a very practical person, I agree with your conclusion that we are looking at a long, long time, and throw these target dates out.

Plus, the idea of the expanding amounts of money that come along, when you have gone up from 1992, from 7.9, to 1995, 11.9. If that trend continues, we are looking at astronomical amounts of money. Now, we would all hope that some great idea comes along that is inexpensive, easy to do and absolutely foolproof and safe, but you don't see that in your analysis; do you?

Mr. WARREN. Not in the time frame that would meet again the 2004. In other words, there were some promising technologies that were presented. In other words, people felt that they had potential and neutralization was one of those technologies. As you know, the Army is studying that right now.

I would say also, with all of the technologies that we looked at, there still is an issue of what you do with the hazardous waste that remains. So you are still into the incineration issue in some way. And I think that is also important to consider, because that has been a tripping point or the major area of concern with regard to the communities about the baseline process.

Mr. HANSEN. Well, there is nothing perfect in anybody's business around here, but we all hope that some technology will come along. But I just hope that the committee doesn't walk out feeling that there is some wonderful thing that is going to float through these doors that is going to cost nothing and be done in a year's time. Because it seems a little unrealistic to me.

I appreciate your comments and I hope I don't give the impression I am totally against that. I am not. I am all for one if it should crop up.

Mr. WARREN. If I could make one point on that, of course we did attempt to get cost data with regard to those alternative technologies. And the firms that we were dealing with at that time felt that they were so early in the stages of development that they

would not even venture a ballpark estimate of what the cost of these technologies might be. So that is another unknown that is out there as well.

Mr. HANSEN. I appreciate your entire testimony, because you reaffirmed what we heard from the previous panel and what a lot of us believed all along. This gives us added reinforcement to the statements that we all have. Admissible evidence, so to speak, that we all have to work with.

Thank you, Mr. Chairman.

Mr. HUNTER. Thank you. Let me get this straight, Mr. Warren. For those of us that don't have the expertise Mr. Hansen has, the essence of what you said is that if you want to get this done on time, with the time lines that we have set, you got to stick with the existing technology? Is that the essence of what he was telling us?

Mr. WARREN. That is the essence. But I would add one caveat, that we do have some concerns that you are going to make the 2004 even with the baseline technology because of all the constraints that are out there. And again, the panel before discussed a number of those.

But in terms of permitting, bringing your technology up to date, things of that nature, they are on a very—I think the General called it optimistic time line, and I would say ambitious, and I would agree that it in fact is ambitious when you are sitting here today with only 2 percent of the stockpile destroyed.

Mr. HUNTER. OK. Thank you.

Another one of our in-panel experts, Mr. Browder. Go ahead, Mr. Browder.

Mr. BROWDER. Thank you, Mr. Chairman.

I would like to just comment on a remark you made about the cost of moving from Europe to Johnston Island. Something we have to keep in mind about that is, Mr. Buyer, that did not have to pass through the U.S. Congress, which is a major hurdle to us doing something expeditious. In the U.S. Congress is where all of these restrictions have been put on. And when you—I look at this map—Oregon, Utah, Arizona, Arkansas, Alabama, Kentucky, Maryland, Indiana—when you start drawing those lines, you are really—the U.S. Congress, you introduce, as you know, a very unpredictable element.

The ones from Europe to Johnston Island did not have to be approved by the U.S. Congress. Plus, it did not cross a single State of the United States, which will complicate the matter. But let me just congratulate these folks, they have done good work on this over the years. And just as a point of information, this is not the first study that you have done related to this program; is it?

Mr. WARREN. No, sir.

Mr. BROWDER. How far back do you go?

Mr. WARREN. I think 1987 we started looking at these issues.

Mr. BROWDER. And you have detected problems, serious problems, every time you looked?

Mr. WARREN. Again, we focused on cost, schedule and performance, and that has continually been a problem. As I said, we started at \$1.7 billion as an estimate, and now we are up to \$11.9. Our

feeling is that that number will grow, be a larger number when you see it in December 1995.

Mr. BROWDER. My point, Mr. Chairman, is the committee members may want to go back and look through the history of GAO and other groups examining this program. Because I think it does require some attention from this Congress.

Mr. WARREN. We did provide a listing of all our prior work in my formal statement. If I could add one thing, additional thing as it relates to the cost, I think it is also important to recognize that a cost driver for this program in many respects is not the actual construction of the sites.

When you look at the breakdown that was provided in the SAR information, you will see that operation and maintenance drives about \$7 billion of the current estimate. So that is also an important factor. In other words, the rate at which these weapons can be destroyed is really what is driving the cost for the program.

Mr. HUNTER. Let me ask just one question on that. The operation—you have got that giant stack of permit application documents behind you. I would presume that probably a ton of the O&M dollars that are represented in most numbers are lawyers who are hired by the Government to engage this myriad of restrictions that they meet with respect to the permitting of the eight sites in the country. Wouldn't you think that is so?

Mr. WARREN. I haven't looked at that in detail, but I would be inclined to agree with you.

Mr. HUNTER. OK. I mean I——

Mr. WARREN. I mean I know that is a cost factor. Material—the Tooele also was a huge group of documents that were associated with it.

Mr. HUNTER. So we usually look at O&M as the operating cost of a base. I think here you have got another aspect.

Mr. WARREN. I have got a better number for you, Mr. Chairman. It cost approximately \$250,000 a day to operate the plant.

Mr. HUNTER. How much?

Mr. WARREN. Two hundred fifty thousand dollars a day for plant operation, when you are doing destruction.

Mr. HUNTER. Now that is of——

Mr. WARREN. That would be out of the Johnston Island, that is from Johnston Island. That would be a number from Johnston Island.

Mr. HUNTER. Two hundred fifty grand a day, you are talking about—about a million bucks every 4 days.

Mr. WARREN. So those costs mount very quickly.

Mr. HUNTER. You are talking about 90 million a year to operate Johnston Island.

Mr. SISISKY. Does that include transportation costs? I am not talking about in the chemicals, but——

Mr. WARREN. You mean of the people or—I am sorry.

Mr. SISISKY. Well, the people live on the island, but they go back and forth, I think; do they not?

Mr. WARREN. Yes, I would believe that would be, so that makes it higher.

Mr. HUNTER. OK. A lot of money. If there are no other questions for Mr. Warren—oh, I am sorry, Mr. Buyer. Go right ahead.

Mr. BUYER. Thank you, Mr. Chairman. I have five questions and regrettably I have to leave by 11:30.

The first question, Mr. Warren, you mentioned the public, and the cost driver of public opposition. And one thing I learned by being up here in Congress deals with my own sometime level of ignorance. I may have opposition to a particular thing, but as I learn more about it or I listen to others, the more that dispels. So my curiosity with regard to public opposition is on the level of lack of knowledge, lack of understanding, sometimes a moment of emotion, which is real, and very understandable by all of us.

So my question to you is, how much is the public opposition really driven by a lack of understanding? And so the follow-up to that is, if in fact what we did in Europe was highly successful without incident, what we are going doing at Johnston Island has also been successful, why is not the success story being told?

Mr. WARREN. A couple points. It is hard for me to say in terms of the general public what in that area is driving their emotion about it. However, I do know the major concerns that are being raised with incineration is that there is concern that dioxins can cause cancer and that drives that concern.

Now in our earlier work, and this goes back into the latter 1980's, we did point out to the Army that they were not doing a very good job of outreach to the public to do the types of things that you are just talking about. And as General Orton mentioned, they do have a program that is now under way. I got a briefing on it the other day. It sounds to me to be a very good program and so I am encouraged that the types of things you are suggesting are, in fact, going to be happening.

Mr. BUYER. All right. Thank you.

The other question is, let me bat back to you, Glen, is the transportation issue again. We, the Congress, have jurisdiction over commerce. And that is the transportation of these chemical stockpiles across State lines is commerce. So Governors can be upset, but once we raise—you know, the concern that you have for the rockets and the leakage, at some point in time it has to reach the state of national awareness, national concern for us to move on it.

Now we have our time line based on the chemical weapons convention, in Russia also. You and I went to Russia; we talked with the officials from Russia and their strong concerns, and they have the very same public awareness concerns that we have in our own country. I just want to throw that out there, that we do have that control over commerce.

Let me throw this out. On the shared technologies, you know, as I understand, isn't there a 5 year, like the year 2004, the chemical weapons, we can extend that for five? Isn't that correct?

Mr. WARREN. That would be with the convention. The 2004 is a legislatively mandated date—

Mr. BUYER. From us?

Mr. WARREN. Yes, sir.

Mr. BUYER. So we can change it?

Mr. WARREN. Yes. The convention is dependent upon the ratification date. And once 65 nations ratify the convention, then it goes into force 180 days after that, it goes into force, and then I believe

there are 10 years from that point in time to go forward for the destruction of the items that are covered under the convention.

Mr. BUYER. OK. Let me conclude with that one. What is your total cost of research on neutralization? How much money is being dedicated to research on the neutralization project?

Mr. WARREN. I believe it is \$225 million, \$275 million is the life cycle cost. We were provided that. So that is an estimate. In other words, that is money that is not fully appropriated.

Mr. BUYER. All right. And if \$37 billion has been spent to destroy 2 percent of the stockpiles, what is the—give me what—if we were to put all this in place, give me what your estimated cost is to destroy this all in 2004. What do you think that is going to be, \$100 billion?

Mr. WARREN. I am just really not in a position to give you that number. We have not done that analysis. It is a fair question.

Mr. BUYER. The first panel, have you guys ever looked at that, what the total cost is going to be by 2004?

Mr. PROCIV. The total cost of the total stockpile?

Mr. BUYER. Everything in total, 2004. Looking at 11 billion?

Mr. WARREN. The estimate is 11.9 if you are asking what do we think.

Mr. BUYER. Yes. I don't think that is realistic based on what you are telling me here today. I mean just simple math tells me this is going to be approaching \$100 billion.

Mr. WARREN. And we have concerns along that line.

Again, in fairness to the Army, I would like to wait till we see the baseline number that is going to come out in December 1995. I think we can do a good estimate for you.

Mr. HUNTER. We will let the Army cogitate on that, Mr. Buyer, and before the hearing is over we will see if the general can give us his own best estimate.

Mr. BUYER. My last, because I know we have got a vote: If we are only spending \$225 million on this, we spent \$30 billion on our annual health research budget, \$30 billion. If we are talking about something of such concern to so many places across the country, maybe we are not looking at this right.

Mr. WARREN. I think in many respects the program managers are trying to find what this hearing is about: How do we contain costs of this program so every dollar they spend on an additional area, is a dollar that the program grows?

Mr. SISISKY. If the gentleman would yield, the \$225 million, doesn't count some costs that we have already spent in there, too. Am I correct?

Mr. WARREN. I believe that is correct, sir.

If I could add, while we are talking about numbers, I think a number that was not brought out earlier, and it is an important point for this committee to note: The General mentioned a year would take care of the nonstockpile cleanup portion of this; that number has been estimated to be \$17 billion. This is a very expensive program when it is brought together in terms of the entire defense budget.

Mr. BUYER. Mr. Chairman, let me again thank you for having this hearing, because this really brings realism to what we are facing here.

I am going to be the first to admit, as one who is not willing to accept what is in front of us, I think we will have to sit down and make the really tough decisions. Glen, just because yours is second based on some time line thinking, the program would be done for \$11 billion, yours may not be second.

Mr. BROWDER. Will the gentleman yield? I support this program.

Mr. BUYER. Well, I would, too, but not if it is going to be \$120 billion or \$100 billion. I mean, we have got to be realistic.

Mr. BROWDER. I support the program. That is why I think it is so important that this hearing is being held, and I said while we naively go along. Until we held this hearing we were naively going along with this program.

Mr. BUYER. Thank you.

Mr. HUNTER. I thank the gentleman.

The gentleman from Mississippi.

Mr. TAYLOR. Mr. Chairman, I am just curious and apologize if this has been said. Getting back to some points that were raised earlier, when was the last time chemical weapons were actually moved to a base in the continental United States? How were they moved there? Were there any accidents, say, in the decade preceding that, when they were being moved around before the great public concern? And obviously they got there.

Mr. WARREN. Yes. I am not sure, but perhaps in the next panel with the Army in terms of the weapons that are at the existing sites. I would mention, for example, the Spring Valley incident, if you are aware of that, where some buried munitions were found. Those munitions were excavated and moved here within the last year and a half. So for these buried munitions, this will be going on from time to time as those incidents are discovered.

Mr. BUYER. Would the gentleman yield? Mr. Hansen did say—

Mr. TAYLOR. Whoa, whoa, whoa.

Mr. BUYER. Oh, I am sorry.

Mr. TAYLOR. I will not yield.

Mr. HUNTER. The gentleman from Mississippi wants to complete his inquiry.

Mr. TAYLOR. Mr. Warren, the point I would like to make and the question I want to ask of all the panels—if they didn't respond today, I would ask that they respond in writing—is that I would like to know the history over the past—over the last decade, when weapons were actually being moved around. I am sure at some point they stopped doing so because of congressional guidelines.

But in the last 10 years when they were being moved onto bases, how did it get there? How many accidents were there? And I would like an explanation of the accidents and what was done to clean them up.

I think obviously I do not have the same concerns that Mr. Browder does, because they are not going to come through South Mississippi to be disposed of. But I think if they were able to get them out of Europe without incident, there is a pretty strong case that we can move these things around our country without incident and go ahead and get rid of them before they do become a problem as they get older.

Mr. Chairman, thank you very much.

Mr. Buyer, I did not mean to be rude, but I have a limited amount of time and I wanted to use it.

Mr. BUYER. In 10 seconds—Mr. Hansen mentioned they moved them from Wyoming to his district in Utah. That is all I wanted to share with you.

Mr. HUNTER. OK.

Gentlemen, we have probably 6 or 7 minutes left on this vote, so we are going to break to take a vote, and we will resume. We will resume in about 10 to 15 minutes, and we will have panel 3 at that time. There will be a previous question, then a rule vote, so we will probably be back in about 20 minutes.

[Recess.]

Mr. HUNTER. We will reconvene, and for our third panel today the subcommittee will hear from Mr. Craig Williams, the national spokesperson for the Chemical Weapons Working Group; representatives of the Chemical Demilitarization Citizens Advisory Committee, Mr. John Nunn of Maryland; Mr. Worley Johnson of Kentucky; Mr. Jim Harmon of Alabama; Maj. Gen., retired, John Matthews of Utah; from Mr. Jim Bennett, director, Calhoun County, Alabama Emergency Management Agency, and Ms. Kari Sagers, director, Tooele County, UT, Emergency Management.

We welcome all of you and look forward to your testimony. I hope you have been able to sit in and listen to the preceding panels. I think you will agree, it has been quite informative testimony.

Without objection, all of your written statements will be entered in the record, and I would like to ask that each of you take about 5 minutes, if you can, to summarize your statements. Don't feel like you have to read your formal statement into the record, because we will make sure that it gets in there.

Mr. Williams, if you would like to, you can go first, followed by Mr. Nunn, Mr. Johnson, Mr. Harmon, Major General Matthews, Mr. Bennett, and Ms. Sagers.

Mr. Williams.

STATEMENT OF CRAIG E. WILLIAMS, NATIONAL SPOKESPERSON, CHEMICAL WEAPONS WORKING GROUP

Mr. WILLIAMS. Thank you, Mr. Chairman, and good morning. I guess good afternoon is more appropriate.

I would like to thank the chairman of the committee for the opportunity to speak on behalf of the Chemical Weapons Working Group, or CWWG. We are an international coalition of over 130 local, regional, and national citizens' groups from the Pacific, the United States, and Russia. Our mission is to ensure that the world's stockpile of chemical weapons are disposed of in an expeditious, cost-effective manner while being protective of the public health and the environment.

It is not our purpose, however, to play the role of obstructionist in the efforts of this or any other nation's efforts to dispose of their chemical weapons. It is vital that you understand and the members of the committee understand that citizens at the stockpile site communities want these weapons destroyed as safely and as quickly as possible.

The CWWG has local member groups at all nine United States and eight Russian stockpile sites, and, as a body, we oppose the

burning of these most lethal chemicals on the planet in the midst of our communities. The basis for our opposition to incineration is valid, reasonable, and supportable.

If you support this Army program, here is what you would be funding: An incineration program that is more than 600 percent over budget, that is more than 10 years behind schedule, that has never met a congressional schedule, and cannot achieve its current congressionally mandated schedule. It is currently facing several legal challenges, with more to follow. It is unsafe, according to Mr. Steve Jones, chief safety manager at the Tooele facility, who was fired for raising these safety concerns, and an incineration program that lacks any measurable public support while having significant community opposition.

But most importantly, you will be funding a technology that has released live chemical warfare agent into the atmosphere at least 12 times during its operational history. To allow seven of these facilities to operate simultaneously in communities across this land is a recipe for disaster. Historically, the Army has not been able to operate even one incinerator without major shutdowns due to fires, explosions, and live agent releases.

While JACADS' costs have risen from its 1987 figure of \$233 million to its current figure of \$1.3 billion, it has nevertheless operated only 50 percent of the time. It is time for Congress to stop throwing good money after bad and to stop allowing communities to be put at unnecessary risk.

It is not only the citizens who recognize the colossal waste of taxpayers' money in the pursuit of this unwanted and unsafe approach, it is also experts who are intimate with the program that agree with this conclusion. The January 1995 GAO analysis makes it very clear that current incineration costs are still, quote, understated, unquote.

With all the resolve the citizens have to oppose incineration, we are equally committed to work towards a solution. We advocate the creation of a cooperative paradigm within which all parties can work towards the common goal.

The 1995 Army commission study of this situation at each site by the Battelle Corporation states: "The Army needs to consider how the local residents will be involved in the process of choosing the technology by which the nearby stockpiles will be destroyed."

The CWWG has developed an approach that can, with your support, address the concerns of all parties to this task. To accomplish this, it is critical we all think in terms of phased implementation. This means: Step one, disassemble the munitions; step two, neutralize the agent and component parts; step three, final treatment of the residuals.

This citizens approach parallels the first strategy of the Alternative Technologies Committee of the National Research Council's 1993 report which observed that this approach is a viable substitute for incineration.

The disassembly and neutralization steps quickly eliminate the risk of warfare agent exposure to workers and to citizens in the neighboring communities and can fulfill requirements of the Chemical Weapons Convention.

Step three is the final disposal phase in which considerable savings could be attained. Several technologies have either demonstrated or are extremely close to demonstrating step-three capability. They are, as we have heard today, neutralization, bioremediation, molten metal extraction, catalytic extraction, silver II nitrate, electrochemical oxidation, and others.

Concerning the Russian program, the message from the citizens in Russia is clear: No incineration. Yet the House of Representatives for fiscal year 1996 is proposing to withhold disposal support for the Russian program because, among other reasons, quote, Russia has refused to accept United States plans to build an incinerator to burn its chemical weapons stocks.

Members of the committee, it is time to stop forcing the citizens of this country and Russia to accept antiquated incineration technology they do not want. The market for innovative technologies for hazardous waste treatment is unlimited while the market for incineration has gone the way of deep ocean dumping and random burial.

The creation of a joint project between governments of both countries, their citizens, scientists, engineers, working together to implement acceptable disposal processes for the largest stockpiles of chemical weapons is called for. This effort would achieve accelerated implementation, significant cost savings, streamlined verification processes, and leave all parties with major improvements in hazardous waste treatment capability for other military and industrial cleanup. This is the most reasonable and prudent solution to this challenging task at hand.

Thank you, Mr. Chairman.

**Prepared Written Statement for the
House National Security Committee
Subcommittee on Procurement**

July 13, 1995

by Craig E. Williams

National Spokesperson, Chemical Weapons Working Group

Good morning. I would like to thank the members of the Committee for the opportunity to speak on behalf of the Chemical Weapons Working Group (CWWG).

The CWWG is an international coalition of over 130 local, regional and national citizens groups stretching from the Pacific, across the U.S. and to the Russian Federation ("CWWG Member List" attached).

The mission of this broad-based organization is to insure:

- that the world's stockpile of Chemical Weapons (CW) is destroyed in an expeditious and safe manner;
- that it is done as cost effectively as possible, and;
- that it be protective of human health and the environment.

It is **not** the purpose of the CWWG to play the role of obstructionist in the efforts of this or any nation's effort to destroy chemical weapons. It is vital that you, as decision makers in the U.S. program, understand this clearly and unambiguously: Citizens want to get rid of the chemical weapons stockpile. More than anyone, the stockpile communities want these weapons destroyed, as safely and as quickly as possible.

The CWWG has local member groups at all nine of the U.S. stockpile sites. (Statements from Pine Bluff for Safe Disposal, Arkansas; Council on Environmental Quality, Oregon; Citizens for Safe Weapons Disposal, Colorado; Citizens Against Incineration at Newport, Indiana; Tooele Clean Air Coalition, Utah; Pacific Asia Council of Indigenous Peoples, Hawaii; and the National Sierra Club Resolution. Alabama, Maryland and Kentucky are represented here today.) The CWWG, as a body, **opposes the burning of the most lethal chemicals on the planet in the midst of their communities.** It advocates the development of a cooperative framework to work for the safe, prompt, and cost effective destruction of these weapons (see the *Public Health Threat From Waste Incineration: A Report from the Government Accountability Project*, attached). It

has consistently expressed citizens' concerns that incineration technology could harm our communities. These concerns have never been addressed in any meaningful way. Accordingly, we will continue to oppose this dangerous program through continued public education about the hazards of incineration, and the advantages of alternative technologies. We will continue to use all legal means available. The CWWG currently has fifteen law firms focused on litigation strategies at various sites. We have used and will continue to use whatever tactics are appropriate. We are resolved to protect our communities. Our preference is to work together with the Congress and the Army in a cooperative effort so that all of us can solve the dilemma of chemical weapons disposal.

The reasons for our opposition are valid, reasonable and supportable. If you, as decision makers, allow this incineration program to move forward, you will be funding a program that has the following track record:

- the program is more than 10 years behind schedule;
- the program is more than 600% over budget (see Cost Schedule attached);
- the program **can not** achieve its Congressionally mandated schedule (see: Implementation Schedule attached);
- the program currently is facing three legal challenges (see Update on Legal Actions attached), with dozens to follow if the incineration plan continues;
- the program lacks any measurable public support;
- the program has a history of technical, management and fiscal problems.

Most importantly, you will be funding a technology that has released **live chemical warfare agent** into the atmosphere at least **12 times** during its history!

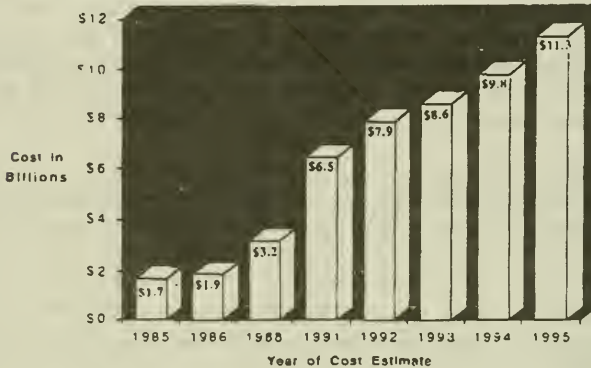
Members of the Committee, this is unacceptable.

If you sign off on this program, accepting the Army's schedule, you will be allowing the simultaneous operation of eight of these facilities in communities across this land. This will be the largest single incineration project in history. In the past ten years, the Army has not been able to staff and operate even one incinerator without major shut downs due to fires, explosions and live agent releases (Greenpeace JACADS OVT Review, attached). JACADS has

operated less than 50% of the time! To agree to allow eight of these incinerators to operate at the same time is a recipe for disaster.

Consistently, Congress and the American people have been misled as to the cost of this program.

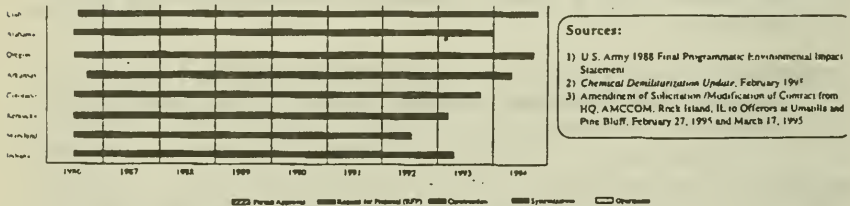
OFFICIAL GOVERNMENT LIFE-CYCLE PROJECTED COSTS: CHEMICAL WEAPONS INCINERATION



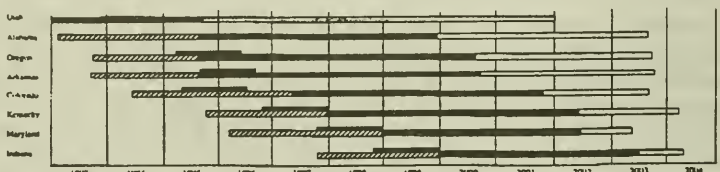
Source: Chemical Weapons Destruction: Advantages and Disadvantages of Alternatives to Incineration GAO Report to Secretary of the Army, July 1992. GAO January 12, 1995

Consistently, Congress and the American people have been misled as to the capability of this program to achieve its scheduled milestones.

ORIGINAL ARMY TIMELINE (including permit approval, construction, systemization, operations) (1)



ARMY TIMELINE FOR BASELINE PLAN(1)



Consistently, Congress and the American people have been misled as to the capability of this technology to perform as advertised from a safety and ecological standpoint.

And, consistently, Congress and the American people have been deprived of honest and objective analysis of alternative approaches.

It is time for the Congress to stop throwing good money after bad.

With all the resolve that citizens have to oppose incineration, we are committed to working for a solution to the chemical weapons disposal problem. We advocate the creation of a cooperative paradigm within which all of us can work toward a common goal of safe, healthy, cost-effective chemical weapons' disposal.

In 1995, the Army commissioned the Battelle Corporation to do a study of the situation at each site. Their report articulates as well as any we have read the primary ingredient for cooperation. They say:

"The Army needs to consider both how the local residents will be involved in the process of choosing the technology by which the nearby stockpile will be destroyed...and how the local communities will be involved in decisions about program implementation."

The Battelle report echoes similar findings by other agencies, including the Office Of Technology Assessment, the Government Accounting Office and the National Research Council. Residents in the stockpile communities have worked long and hard to make it a strategic necessity for the Army to include them in the decision making process.

The CWWG has developed an approach that can, with your support, address the concerns of all parties to this task and satisfy the needs of cost effectiveness, safety, environmental protection and Treaty compliance (See *Chemical Weapons Disposal: The Citizens' Solution to the Costly Mistake of Incineration*). In order to accomplish all of

this, it is critical that you, the members of this Committee, think "phased implementation."

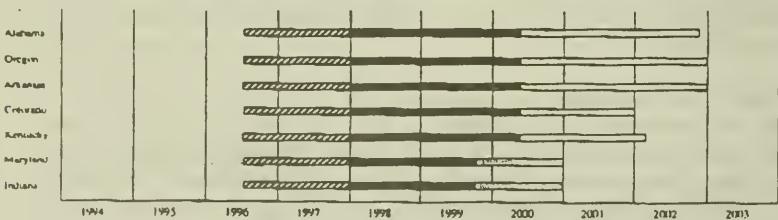
The citizen's approach falls exactly in line with the first strategy of the Alternative Technologies Committee of the National Research Councils, as found in their November 1993 report to the NRC Stockpile Committee. The Alternative Technologies Committee recommends reconfiguration and neutralization, separated storage and final remediation.

The first phase is the reconfiguration or disassembly of the munitions and partial neutralization of contaminants. This phase accomplishes two critical things:

- First, it eliminates the risk of warfare agent exposure to workers and to citizens in the neighboring communities.
- Second, it can fulfill the requirements of the CWC.

Munitions reconfiguration would be prioritized according to type and condition of the munitions of each stockpile. Specialized teams would be trained to reconfigure the five different types of munitions. Reconfiguration of different classes of munitions could occur at different sites simultaneously. Specialized teams for each weapons class would insure a high level of proficiency, and costs would be reduced because each team would reuse its equipment at each of the sites. Such a plan avoids the massive training programs needed for the management and operation of eight incinerators and huge expenditures for duplicated equipment. Reconfiguration does not use a new technology. The chemical-demilitarization folks have known for more than a decade that they could develop their drill and transfer technology to demilitarize the stockpiles.

SIMULTANEOUS RECONFIGURATION/NEUTRALIZATION OF MUNITIONS AT CONTINENTAL U.S. STOCKPILE SITES (3) (4) (5)



Phase two would follow-up with a final treatment of the residuals of phase one. Considerable savings could be attained and cutting edge technologies could be developed. There are at least two

benefits for creating new technologies. First, marketable innovative technologies are made available for other military and industrial clean up and, second, acceptance by citizens in Treaty countries will speed ratification and ease verification.

There are several technologies that have either demonstrated their capability for final treatment, or are extremely close to demonstrating such capability. Among these are Neutralization or Neutralization coupled with Bioremediation (see Update On Neutralization Technology and various news clips, attached); Molten Metal Catalytic Extraction (see Applicability of the Catalytic Extraction Processing Technology to Chemical Weapon Remediation, attached); Silver II Nitrate Electrochemical Oxidation (see AEA's Silver II Process, attached); Supercritical Water Oxidation; Molten Salt; and Wet Air Oxidation, to name a few.

This kind of phased implementation could save billions of dollars. The current incineration cost estimates according to the January 1995 GAO analysis are still extremely optimistic and "understated." JACADS alone has risen from a 1987 cost estimate of \$233 million to a current price tag of \$1.3 billion and GAO implies that that cost will rise.

Meanwhile, researchers at Aberdeen have stated that the Aberdeen stockpile could be destroyed by neutralization at "20% of the cost of incineration."

Dr. Joseph Bunnnett, member of the NRC Alternative Technologies Committee and Chair of the Task Force on the Scientific Aspects of the Destruction of Chemical Warfare Agents of the International Union of Pure and Applied Chemistry, quoted in the East Oregonian, June 30, 1994 states that alternatives, "may be 'billions' cheaper than the \$8.8 billion nationwide the Army intends to spend on incineration."

It is not just citizens, then, who recognize the colossal waste of taxpayers money in pursuit of this unwanted and unsafe approach; we are backed up by experts who are intimate with the options that are available.

Finally, a word about the Russian situation. The message from citizens within the Federation is clear: **No incineration** (Prepared Statement by Olga Pitsunova, Director, Center for Assistance to

Environmental Initiatives, International Coalition for Military Safety, Saratov, Russia, attached). The Russian citizens are pushing their government to use approaches other than incineration that will be acceptable and achieve Treaty goals. Meanwhile, the United States Congress is withholding support because, among other reasons, "Russia has refused to accept U.S. plans to build an Incinerator to burn its chemical weapons stocks."

Members of this Committee, it is time to stop forcing the citizens of this country and Russia to accept incinerators they do not want for the benefit of the few contractors who stand to make huge profits from these technological dinosaurs. In Utah, Steven Jones, former safety manager of the Tooele Chemical Demilitarization Facility, is suing the Army and its contractor, E.G and G., for wrongful termination related to procedural, operational and design flaws of that incinerator. The market for innovative technologies for hazardous waste is unlimited. The market for incineration is long since past, gone the way of deep ocean dumping and random land burial.

We, therefore, recommend the creation of a joint project within which the governments of both this country and Russia, and their citizens, scientists and engineers work together to implement acceptable disposal processes for the two largest stockpiles of chemical weapons in the world. This kind of joint effort would achieve accelerated implementation, significant cost savings, streamlined verification processes for compliance with the Treaty and leave all parties with major improvements in hazardous waste treatment capability.

On June 18, 1995 the Chemical Weapons Working Group wrote to members of all relevant Congressional Committees on the matter of Chemical Weapons Disposal. The following recommendations were contained in that correspondence. I would urge this Committee to revisit these recommendations and give them full consideration.

Recommendation 1 : Delete the existing 2004 deadline established in the FY '93 Defense Authorization Act by substituting a deadline of 2010 or the allowable time frame under the Chemical Weapons Convention (CWC) for Chemical Weapons destruction, whichever comes first.

Recommendation 2 : Shift at least \$60 million from proposed design, procurement and construction of more problematic incinerator complexes into additional alternative destruction processes for the disposal of Chemical Weapons in FY '96, specifically, but not limited to, the work currently underway at the Edgewood Research Development and Engineering Center under the Chemical and Biological Defense Command. Go/no go pilot plant decisions are to be made in mid-1996 for the approaches being researched at Research Development and Engineering Center for bulk sites.

Funds should also be made available for "level of confidence" demonstrations of disposal processes that have achieved "proof of principle" levels for CW disposal, including but not limited to electrochemical oxidation and molten metals processes. This funding would be taken from the current funds requested for construction and procurement in FY '96.

Recommendation 3 : Direct feasibility studies for reconfiguring munitions stockpiles by expanding the scope of the work done by the A.D. Little Corporation in its 1985 study of M-55 Rocket separation (M55-OD-8/52710) to include reconfiguration of all munitions and neutralization of the components as recommended in the 1993 National Research Council report on Alternative Technologies (GPO 1993 0-352-096).

Recommendation 4 : a) Direct the Secretary of Defense to establish a Commission on Chemical Weapons Destruction to review the current program, including but not limited to:

1. fulfillment of the Certification of the Operational Verification Testing at JACADS, pursuant to 50 U.S.C. section 1521 (k) (2);
2. life-cycle cost comparison of incineration and alternative technologies including costs of reconfiguration and partial oxidation of agents;
3. the comparative environmental and public health impacts of incineration and alternative technologies.

We suggest that this Commission have 20 members and include representatives of the following: each of the Citizens Advisory Commissions (8), the Chemical Weapons Working Group (3), the National Research Council Stockpile Committee (2), Aberdeen Proving Ground / Research Development and Engineering Center (2), U.S. Army Chemical Demilitarization & Remediation Activity (1), GAO (1), EPA (1) and DoD (2). The Commission should be chaired by

the Deputy Assistant to the Secretary of Defense for Chemical and Biological Matters.

The Commission should be directed to provide an interim report of its findings to the Secretary of Defense no later than May 30, 1996, with a final report due no later than October 1, 1996. The Secretary should in turn report to the Congress no later than 30 days after the interim report and make a final report to Congress on the Commissions findings no later than March 1, 1997.

b) Include Governor appointed Citizen Advisory Commissions and CWWG citizen representatives at Congressional Hearings on Chemical Demilitarization prior to approval of the 1996 Defense Authorization Act.

Recommendation 5: The Congress should direct that an investigation be undertaken immediately into the legality of TOCDF performing surrogate burns or any operations.

Recommendation 6: No appropriated construction or baseline specific procurement funds be expended in FY '96 or thereafter until:

a) The Secretary of Defense certifies to Congress that the TOCDF has operated successfully for a period of six consecutive months meeting all environmental and safety standards as required under federal and state regulatory requirements;

b) States at which baseline facilities are scheduled for construction or for which baseline specific equipment is to be procured have issued complete permits for such operations, having followed all Federal and State regulations;

c) Throughput rates and destruction capabilities reflect a sustained level of at least 15 rockets per hour average (or equivalent for other types of munitions) during the six month operational period referred to in section (a);

d) An average of 16 hour per day operations are sustained during the six month operational period referred to in section (a);

e) During the six consecutive months of operations, an extensive review of the operations and performance at TOCDF be ongoing, with public involvement, to insure permit requirements, environmental standards, emergency preparedness, throughput and destruction levels are being met.

Recommendation 7: Regarding the TOCDF facility, Congress should direct that the Army adhere to the following, that: subsequent to the six consecutive months of operations but, prior to reapplication of RCRA permits or the modification of the existing permit for the

purpose of continuation of operations beyond the permitted time allowable, the PMCD is required to submit a report to Congress and the Utah CAC including the following:

- 1) the basis upon which additional time beyond the permitted period of operations is needed;
- 2) notice that public hearings have been scheduled at least 180 days prior to such reapplication or to submission of modification plans to EPA Region VIII or Utah DEQ;
- 3) that all records relating to operations up to the notice of the public hearings be available to the public for review;
- 4) a revised schedule for completion of operations at TOCDF;
- 5) a revised cost estimate for the additional operational period;
- 6) that only through the issuance of a new permit, shall TOCDF be permitted to continue operation beyond the time allowed in any existing permit.

Recommendation 8 : Until sections 1 through 7 above are fulfilled:

- (a) Fence the \$108 million requested for construction of baseline incineration facilities in Pine Bluff, Arkansas and Umatilla, Oregon in FY '96.
- (b) Fence the \$110,800,000 in construction amounts appropriated for construction in Anniston, Alabama, pursuant to the authorization of appropriations in section 2104 (a) of the FY '93 Defense Authorization Act.
- (c) Fence the \$194.6 million or any amount requested for procurement of baseline specific equipment.

Citizens of this nation deserve to be listened to, especially concerning decisions that directly impact their lives, their communities and their environment. Clearly this program will have a tremendous impact on all of these. I therefore wish to thank the Committee for this opportunity to speak on behalf of the hundreds of thousands of taxpaying voters who wish to see the Army's incineration program abandoned and safe disposal technologies pursued in its place.

Craig E. Williams, National Spokesperson -
Chemical Weapons Working Group

Mr. HUNTER. Thank you, Mr. Williams, and we will hold off on questions until we go through the entire panel.

Mr. Nunn, thank you for being with us, sir.

**STATEMENT OF JOHN E. NUNN III, COCHAIRMAN, MARYLAND
CHEMICAL DEMILITARIZATION CITIZENS' ADVISORY COM-
MISSION**

Mr. NUNN. Thank you.

I am the cochairman of the Maryland Citizens Advisory Commission, and in that capacity we met over a dozen times this last year and a half. We have reviewed the NRC reports, we have been briefed on numerous occasions by the personnel from the Chem Demil Program in Aberdeen, spoken directly with the NRC when they came to the Aberdeen site, reviewed the stockpile, and met with the commission, and we have been in touch on at least a quarterly basis with the neutralization research that has been ongoing at Aberdeen.

Maryland is fortunate because our stockpile, unlike others, is one ton containers of mustard agent, with no explosives or energetics, and because of the Army's parallel program that, they testified to today, there is a chance. In other words, a parallel program provides for a race.

There is going to be a decision made in 1996 as to what technology is used in Maryland at Aberdeen at the bulk site, and that is what the citizens have really only asked for from the beginning. We just want to have a say in what disposal technology is used in our backyard.

I think everybody is committed to destroying the stockpile, and to that end I think that you should know that our commission has told the Army, and told the Army early on, that we would consider favorably the decision to locate a pilot plan for a neutralization facility at Aberdeen.

Earlier it was testified about the delay in implementing a program and the number of years—I think the National Research Council, in its report, indicated 5 to 7 years—to develop an alternative technology, and that considered a series approach. The citizens in Maryland on this commission are saying we will take a pilot plan that cuts a significant amount of time off of that development process, and we can actually get to destroying the stockpile quicker.

So you see, if you give the public a chance, nobody says that there is nothing we should do and that there is no risk. The public really wants to participate and have some involvement, and we are fortunate in that regard.

We are really even more encouraged. I have a chart—and I would ask somebody to put that up—that came from the briefing that the citizens advisory commission had at Aberdeen on May 12, I believe. What that really says is, everybody talks about neutralization and talks about chemical process.

Just so everybody knows what it is, what they are talking about doing at Aberdeen is mixing mustard agent with hot water, and you form a substance called thiodiglycol, which is a nonhazardous substance, and then you add sewage sludge to it, and the sewage sludge will eat the compounds, and what you end up with is a

waste stream. You can make that waste stream a solid or you can leave it a liquid.

The commission advocates leaving it as a liquid, or at least that that be explored, because it can be discharged to an ordinary waste water treatment plant, and the preliminary studies in the laboratory indicate that may well be possible; you have got a tremendous waste problem solved.

Now, I understand what Mr. Decker said and General Orton about this alternative tech program and this neutralization process, but I ask everybody not to throw common sense out the window. I mean we are not talking about mixing complex chemicals, we are talking about water and mustard, and we are talking about hot water and mustard and throwing sewage sludge to this process.

The idea of treating toxic waste with bacteria is not new. Private industry is doing that now. There may not be a plant for neutralization of mustard that you can go buy from Wal-Mart, but there are companies out there that do this work. So this is not some kind of "pie in the sky" thing, and it is also not the same process that was done at Rocky Mountain Arsenal. And with respect to the Army's prior experience with neutralization, that was also with GB, not with mustard.

So what I am concerned about and what the commission is concerned about is, while we hear the Army talking about an alternative program and they are going to run them in parallel, the commitment the Army has made to this program is that it is funded far less than the baseline program.

There are going to be critical decisions made in this program that need to be addressed. The Army refers to the neutralization effort as a backup. At one of our meetings, members of the Army said it is a backup in case we can't get permits at other sites. To me, that is not a parallel program. I don't think that is what Congress intended when it funded this program, and I don't think that is what the citizens are asking. Make it a horse race. Give them a chance. But right now it is nowhere near a chance given the money they are spending on the baseline.

The other thing is, if you want to know how committed somebody is to making a process work, the GAO identified back in 1992 that permit issues were one of the big delays in this program. For the last year and a half the commission has begged the Army to go meet with the State regulators and iron out permit issues with respect to neutralization. To my knowledge, there has been one meeting over the phone. There is not a serious effort being made to resolve permit issues with respect to neutralization. So—

Mr. BROWDER. Excuse me, Mr. Chairman.

Mr. Chairman, would it be permissible to ask Mr. Nunn a question?

Mr. Nunn, thank you for the comments that you are making. I would like to ask, just for our knowledge—and perhaps you can answer or somebody else—neutralization, do you know what percent of the stockpile is mustard versus the other nerve agent?

Does anyone know? Could someone answer that for us?

Mr. PROCIV. You want both in munitions and bulk?

Mr. BROWDER. Yes—well, a two-part question, because I think you are raising some good questions about neutralization. What

percent is mustard versus the other kind, nerve agent? And, also, if neutralization were possible, what percent of the stockpile could be neutralized?

For example, I know bulk agent, that neutralization works—that would work, but with something like the M55 rocket, that is a more difficult matter.

So just a two-part question: What percent of the agent or the stockpile is mustard versus the nerve agent? And then what percent of the stockpile is in a weaponized or in a state that could be neutralized versus something that neutralization would not work on? If someone can get that and give it to us, I would appreciate it.

Mr. Nunn, I apologize for interrupting you, but I think that is an important point as you proceed.

Thank you.

Mr. NUNN. Well, to follow up on that issue, I think one way Congress is talking about cost and saving money, the Pueblo site, for example, is all mustard and in rounds, in munitions, and there is an effort to reconfigure those munitions and take the explosives out. But essentially, once you reconfigure, you don't have explosives, you have another bulk site, because you just have agent in a container. The containers just aren't quite as big. So there is the possibility to do exactly what you are saying, to look at a process for each type of agent.

But I think what happens here is that Congress needs to direct the Army to develop an alternative disposal program for use at the bulk sites and not just tell them to study the issue but to direct that a program be developed, and the alternative technology program that they have embarked on at this point seems to be viewed as a backup in the event that the baseline doesn't work, and I don't think that that is what Congress intended by funding the research program.

I think that we need to have a choice made and have a horse race made of this and choose what is best in terms of the criteria, and I guess I would get to the criteria.

Our commission has had a number of concerns about the criteria, and specifically the criteria that Congress says in its law which says that we have to be able to meet the deadline of 2004. Why is it 2004? If the treaty is enacted, it is probably going to be 2007. The GAO admits that the baseline program is never going to meet 2004, or that is an overly ambitious cost. Why not be more realistic and say 2007, which seems to be the treaty deadline?

With respect to this language, Congress also said the Army can use an alternative technology if something is significantly safer. That means the person who is going to determine that is the Army. And are they really going to determine that something is safer than the baseline, a process which they have already said is safe, that they don't really feel a need to replace? They are never going to come to that conclusion. It is entirely subjective.

Nobody has said to this Congress that the baseline is the safest way to get rid of these weapons, they just say it is safe. So any other process just needs to be safe as well.

In terms of cost effectiveness, I think the process has to be cost effective. I think that if you look and use your common sense, what

they are talking about: this isn't an incinerator with emissions-scrubbing devices or complicated shut-off valves and gauges; it is not a high-temperature process; it is a matter of taking mustard, putting it in hot water, and adding sewage sludge to it.

I have heard a lot of people say why it won't work, but they didn't tell you why it wouldn't work and why it is not on the shelf and that we need to do more research. Well, we need to do more research. They don't want it to work at this point because then they have to abandon the baseline program. They haven't made a decision. The commission is concerned about the level of involvement with the State permit regulators and the effort that the Army has given to date.

Lastly, everybody talks about the risk, and I would point out to the Members of Congress that the risk is really a site-specific risk and that the risks at Anniston, AL, are far different from the risk at Aberdeen, MD. Originally we were told that Aberdeen was the highest storage risk because—not because the stockpile was deteriorating, not because of explosives, but because the stockpile was stored close to a military airstrip.

When the Commission said, What can we do about this risk to mitigate this risk, would you consider closing the airstrip or moving the stockpile?, lo and behold, they went back and looked at the original risk assessment and said, we made a mistake, we didn't measure correctly how far the stockpile was from the airstrip, and we didn't consider in these risk assessments that it is restricted air space.

So, lo and behold, Aberdeen went from being one of the highest risk to one of the lowest risk. In fact, we are now almost at cutoff level of having any emergency preparedness.

So be careful of these risk assessments, because they are based on a programmatic level to justify incineration. They are not necessarily based site-specifically to reflect the conditions of storage at a particular site. That message was said to us by the general at Aberdeen at the briefing back in June.

Thank you.

Maryland Chemical Demilitarization Citizens' Advisory Commission

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Testimony of John E. Nunn, III
Co-Chairman
Maryland Chemical Demilitarization Citizens' Advisory Commission

Procurement Subcommittee
of the
House National Security Committee

Hearing regarding the
United States'
Chemical Munitions Stockpile Demilitarization Program

July 13, 1995

*Authorized by the U.S. Congress to provide a forum for the exchange of information and concerns
about chemical weapons disposal in Maryland*

John E. Nunn, III, Chairman
Steven K. Broyles, P.E.
David McMillion

George Engleson, Co-Chairman
Kathanne K. Hutchinson
B. Daniel Riley

Alvin L. Bowles
Linda Koplovitz
Hon. H. Thomas Sisk, Jr.

The Maryland Chemical Demilitarization Citizens' Advisory Commission held its first meeting in December 1993. The Commission's members are: John Nunn and George Englessen, co-chairmen; Alvin Bowles, Stephen Broyles, Katharine K. Hutchinson, Linda Koplovitz, David McMillion, Dan Riley and Hon. Thomas Sisk.

The Commission has had reports and briefings from the Department of the Army, from the U.S. Army Chemical Demilitarization and Remediation Activity program, and from the National Research Council of the National Academy of the Sciences.

Members of this Commission have been able to meet directly in some cases with members of Maryland's Congressional delegation to discuss concerns about the current baseline program and the new neutralization followed by biological treatment. Additionally, members of Maryland's Congressional delegation have sent staff persons to several of our meetings with the Army. However, this Commission has had only limited contact with appropriate Congressional committees and last year in particular was prohibited from attending the hearings on this program held by Congressman Murtha. This Commission would like to participate more fully in any and all hearings on the demil program. The Commission asks that they be invited to participate in any future hearings held on this program.

Citizen input has been solicited by the Commission through two public meetings in January and March, 1994; through newspaper articles; and through consultation and cooperation with such groups as the Coalition for Safe Disposal of Chemical Weapons, the Aberdeen Proving Ground Superfund Citizens Coalition, the Batelle Institute, the Stimson Center, the Chemical Weapons Working Group and citizens advisory commissions at other stockpile sites.

Some members have traveled, on average, 100-150 miles per meeting of the Commission, and in addition various members have traveled to Washington for Congressional visits, to public officials' offices, to Aberdeen Proving Ground, and to Toole, Utah for a meeting of the National Research Council.

The Commission has issued a full report to Congress on the National Research Council's recommendations on alternatives issued in February 1994, a brief report to the Senate and House Armed Services Committees in June 1994, and a letter to General Tragemann at APG concerning mitigation of the risk to the stockpile resulting from its location in close proximity to Wiede Field. The Commission also issued an annual report to Congress dated January 25, 1995. Individual members also have sent written comments to Congress, to the Stimson Center, and to the Army. Through contact with news media in Baltimore and in the communities where members reside, it has attempted to keep the public informed as each development occurs in the search for a safe and practical method of disposal of the chemical weapons stockpile at APG.

This Commission is committed first to a safe disposal of the ton containers stored at Aberdeen and second to see that neutralization is fully explored as a disposal option at Aberdeen and is selected if more appropriate than the baseline Incinerator program. To this end the Commission has informed both the Army and the NRC that the Commission would support the location of a neutralization pilot plant at Aberdeen. Now the Commission would like to inform Congress as well that the Commission would support a decision to build a neutralization pilot plant for the destruction of mustard agent at Aberdeen. The construction of a pilot plant could in all likelihood begin before construction of a full scale incinerator, allowing the Army to begin disposal of the stockpile.

Congress in the FY '94 Defense Authorization Act authorized funds for research and development of neutralization technology for possible use at Aberdeen, Maryland and Newport, Indiana. The Commission reiterates its position that neutralization of the mustard stockpile at Aberdeen should continue to be funded and studied by Congress and the Army. This Commission has been informed by the Army in meetings that laboratory work on neutralization is proceeding and the results have been promising.

Researchers at Edgewood have developed a process whereby mustard agent is neutralized using hot water and then this neutralized material treated with sewage sludge which destroys the mustard agent. This process is not complex and does not require state of the art, one of a kind equipment as opposed to the baseline program. Additionally, the process has the potential to be a low cost alternative. This process is undergoing bench scale testing as we

speak and early results from the bench scale tests indicate that the process works. The question this Commission has is whether the Army is truly committed to substituting this process for an incinerator at Aberdeen?

Despite the promising results the Army, has informed the Commission at the Commission's meetings on November 29, 1994 and December 12, 1994 that the neutralization effort is merely a "back-up" for the baseline technology in the event that the baseline technology cannot be permitted or other difficulties occur. This position appears to be in conflict with the Army's representations to Congress requesting funds for this program.

Additionally, the Commission is deeply concerned that despite repeated requests to seriously discuss permit requirements for a neutralization pilot plant or full scale facility with the State of Maryland, the Army refuses to do so. In early GAO reports on the baseline program, it was noted that permit issues could seriously delay the baseline program. The Commission believes that by engaging State regulators in the neutralization permit process now, delays can be avoided in the future.

The Army's lack of meaningful communication with the Maryland Department of the Environment and reference to the neutralization program as a "back-up" to the baseline technology causes concern among the Commission as to the Army's resolve to fully explore neutralization as a viable substitute for incineration at Aberdeen.

The stockpile storage risk at Aberdeen, has now been addressed by the Army. The NRC noted in its report that Aberdeen has the highest stockpile storage risk. Aberdeen's storage risk was believed to be high because of the dense population surrounding the stockpile and the fact that the Army chose to locate the stockpile outdoors near an Army airstrip known as Weide Field. The only credible accident scenario that could result in an off-post release of mustard agent is a small plane crash (as a result of air traffic from Weide Field) into the stockpile, which is stored out in the open.

It should be noted that the mustard agent stored at Aberdeen is not leaking and mustard agent is probably the least lethal of all chemical weapons. This information was verified firsthand by the Commission during a visit to the Aberdeen Stockpile.

The Commission in its February 1994 report to the Army requested that the Army look at ways to reconfigure the stockpile to reduce storage risks. Again in May 1994, by letter the Commission urged the Army to take actions to reduce or eliminate storage risks at Aberdeen. The Army responded by directing the Mitre Corporation to study this issue and promised the Commission a copy of its report in Fall 1994. When faced with closing a military airstrip or declaring the stockpile safe, The Mitre Corporation found that the original risk assessment erroneously calculated the distance between the stockpile and the airfield. The original assessment also totally ignored the restricted air space above the stockpile. Consequently, the stockpile storage risk was overstated by two orders of magnitude in the original risk assessment.

Why the risk was overstated was poignantly explained by General Friel of CBDCOM at a briefing on the stockpile storage risk at Aberdeen held on June 12, 1995. He indicated that the risk assessment was drafted solely to support the disposal decision of on-site incineration. At this meeting it was also pointed out, as suspected by the Commission that there is no credible accident scenerio that could result in an off post release of agent at Aberdeen.

Yet, Congress and the public are repeatedly told of the "storage risk." The Commission finds this position to be a total distortion of the facts and done solely for the purpose of advancing the Army's incineration program.

Finally, the Commission finds that the language of PL 102-484 Sec. 174 Alternative Disposal Process for Low Volume Sites should be amended. An amendment is necessary to allow the Army to adequately assess neutralization versus incineration. Congress appropriated monies for the research and development program for neutralization knowing full well that it is unlikely that an alternative technology could meet the Congressional deadline for disposal of 2004. Likewise, Congress has not required the Army to abandon the baseline program because the Army was unable to meet the Congressional deadline of 1994 and most probably will not meet the 2004 deadline given slippage in schedules previously supplied to Congress. The rationale expressed for the deadline by Congress and the Army has been because the stockpile is deteriorating and thus poses a risk to civilians. This position is a generalization that ignores the site specific realities of the stockpile at each low volume site. For

example at Aberdeen the stockpile has no leakers, no munitions, and the ton containers are well maintained and as a result of recent mitigation efforts risk of storage to the public is nonexistent. . Therefore the Aberdeen stockpile can be safely managed well beyond 2004 without endangering the civilian population.

It should also be remembered that should the Chemical Weapons Convention Treaty be ratified the congressional deadline would be superceded. The treaty's deadline for disposal will not be 2004 but more likely 2007.

Sec. 174 contains the terminology "significantly safer". This language is too subjective to allow its use as a criterion to evaluate any alternative technology. "Significantly safer" is not defined in Sec. 174. Therefore the definition is left solely to the Army with Congress specifying no guidelines as to in what ways the alternative technology has to be "significantly safer." The real criterion should be whether neutralization is a safe disposal method.

Similarly, the language "equally or more cost effective" than the baseline lacks definition as to how the cost comparison is to be made. In Sec. 174 as currently worded, the Army is free to include or exclude costs to arrive at a cost comparison. The Commission finds the critical cost comparison to be a site specific cost comparison between the construction, operation and closure costs of a neutralization facility versus the baseline incineration facility at Aberdeen.

If Sec. 174 is not amended the Secretary of the Army in evaluating neutralization could easily say that neutralization will work but cannot be used at Aberdeen because the criteria in Sec. 174 can not be met. Consequently, the monies Congress appropriated for research and development at Aberdeen would be wasted. This Commission does not believe that Congress appropriated the monies for neutralization with the intent that Sec. 174 could be used to prevent the substitution of neutralization for incineration at the bulk-only sites. However if Sec. 174 is not amended this could easily occur. At several Commission meetings and most recently on May 12, 1995 the officials from PMCD have told the Commission that the law as currently written will present a problem. Recently the Indiana Citizens Advisory Commission also recognized problems with Section 174 and a need to change the language "significantly safer."

Therefore, the Commission requests Congress to amend Section 174 (a) of PL. 102-484 as follows:

(a) REQUIREMENT FOR ALTERNATIVE PROCESS.- If the date by which chemical weapons destruction and demilitarization operations can be [completed] *commenced* at a low-volume site using an alternative technology process evaluated by the Secretary of the Army falls within the deadline established by the amendment made by section 171 and the Secretary determines that the use of that alternative technology process for the destruction of chemical weapons at that site is [significantly safer] *safe* and [equally or more cost-effective than the use of the baseline disassembly and incineration process] *an alternative technology facility's construction, operation and closure costs would be equal to or less than the construction, operation and closure costs of the baseline disassembly and incineration process at a specific storage site* then the Secretary of the Army, as part of the requirement of section 1412(a) of Public Law 99-145, shall carry out the disposal of chemical weapons at that site using such alternative technology process. In addition the Secretary may carry out the disposal of chemical weapons at sites other than low volume sites using an alternative technology process (rather than the baseline process) after notifying Congress of the Secretary's intent to do so.

In conclusion the Commission assures Congress of its commitment to keep Congress informed of developments at Aberdeen. Additionally the Commission will work with the Army and Congress towards solving the problems associated with disposal of the stockpile at Aberdeen.

Respectfully,

Maryland Chemical Demilitarization
Citizens' Advisory Commission
John E. Nunn, III, Co-Chairman
George Englessen, Co-Chairman
Alvin L. Bowles
Steven K. Broyles, P.E.
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Mr. HUNTER. Thank you, Mr. Nunn.

We have another distinguished gentleman from Maryland who I think has a question for Mr. Nunn, Mr. Ehrlich.

Incidentally, Mr. Baesler, any time you have questions, just jump in. Mr. Ehrlich has a comment to make here, and any time you have a question, we will then recognize you.

Thank you.

Mr. EHRLICH. I will be brief, Mr. Chairman.

I just want to, John, thank you publicly for your fine work on this issue, to acknowledge all the time and energy that you put into this. I need to be about three different places now, Mr. Chairman, but with your permission I would ask unanimous consent to submit a statement for the record.

Mr. HUNTER. Absolutely, and we will make sure that you get the total program and all the testimony that has been given today, too.

Mr. EHRLICH. Thank you, Mr. Chairman.

House National Security Procurement Subcommittee

July 13, 1995

Statement by Congressman Robert L. Ehrlich, Jr.

I want to take the opportunity to thank Chairman Duncan and the rest of the subcommittee for conducting these important oversight hearings into the Department of Defense's Chemical Demilitarization program. As you know, the Aberdeen Proving Grounds is home to bulk containers of the deadly chemical agent - mustard gas, which is of great concern to my constituents and me. My top priority is to ensure safety for the neighborhoods and schools located in close proximity to this storage site.

As the Executive Agent of the Chemical Demilitarization program, the Department of the Army has the responsibility to dispose of all chemical weapons in a reasonably cost effective manner while ensuring maximum safety to the public. Due to the complexities of handling and disposing of chemical agents, this continues to be an arduous task. The base line incinerator method currently employed by the Army has been demonstrated to be effective in disposing of a wide range of chemical agents and munitions. The increasing costs and unforeseen delays in the program's schedule, however, compels us to reexamine the future direction of this program. One specific issue I would like to address during this hearing concerns the alternative disposal technology method known as "neutralization."

At Aberdeen Proving Grounds, the Army has successfully experimented with developing this alternative technology, as mandated in Public Law 102-484. The neutralization process is unique in that it may not require the construction of an on-site incinerator for chemical agent and munition disposal. Furthermore, neutralization is best suited for disposing of bulk storage sites at Aberdeen and Newport, Indiana. The Army's current plan to build a one-size-fits-all incinerator at each of the eight sites around the country seems costly when considering the incinerators will be dismantled as soon as the process is completed. Since each chemical storage site has different chemicals contained in unique munitions, the Army should take advantage of this alternative technology, not as a backup, but as the appropriate disposal method at the appropriate site. The required experimentation and technological know-how already exists at APG, and, accordingly, I am supportive of establishing a pilot program for the neutralization process at Aberdeen. Accordingly, during consideration of H.R. 1530, the "House National Defense Authorization Act for Fiscal Year 1996", Representative Gilchrest and I offered an amendment to clarify and improve the law for developing alternative technologies. Chairman Hunter requested we remove the amendment and address the neutralization issue after this hearing takes place. I hope my colleagues, through the testimony and responses given today, will gain a better understanding of the positive aspects this alternative method will have on our Chemical Demilitarization program.

Again, I applaud Chairman Hunter for holding much needed hearings into a costly Pentagon project. I look forward to working with the Chairman and the Committee on this issue of great importance to the nation and my constituents working and living near the Aberdeen Proving Grounds.

Mr. HUNTER. We thank you for your interest in this, Mr. Baesler.

Mr. BAESLER. I will go back to Mr. Williams, if that is OK, Mr. Chairman, since he is from Kentucky.

There has been a lot of conversation about transportation today, some of which I wasn't here to hear but you heard. I would like to get your comments, since we have a site in that area—what your comments are and whether or not you think the transportation issue should be opened up, or if there are other alternatives too, other than what you have heard.

Thank you.

Mr. WILLIAMS. Thank you, Congressman.

I would say that what we are seeing here this morning is the decade-old debate between the sites that don't have this stuff wanting to save money by moving it somewhere, which happens to be at sites that have it and are not interested in having it any more—any more of it brought to them.

If I might make a comment on one of the questions that was raised this morning, someone asked how much would it cost in current money to move it compared to on-site incineration. In 1988, the final environmental impact statement said that the cost was about the same: you can relocate the stockpile to one or two sites for about the same you could burn it at each site. I must point out that the cost of on-site incineration in 1988 was \$3.2 billion, it is now close to \$12 billion, and I would venture to guess that the costs for transportation have not accelerated at that—anywhere near that level.

Second, I would like to say I think there are some options in between on-site incineration, and moving the material as it is to some other location for disposal. For example, at the Kentucky site, we have an extremely low percentage of the munitions, 1.2 percent of the national stockpile, the smallest stockpile of any of the sites. It is our conjecture that those munitions could be taken apart, the agents separated from the munitions, as we pointed out in our three-step process, and that agent reduced down to a nonchemical warfare material.

At that point in time, the disposal options are numerous, the transportation options are numerous. It is not required to go to another chemical stockpile disposal facility for disposal because you are no longer dealing with chemical warfare agent, you are dealing with a hazardous waste, which is transported around this country, unfortunately, all the time. But you could find locations nearby, perhaps in our own State, that could do a final treatment process right there.

So I don't think that we need to, when we talk of transportation, think in terms of entirely transporting everything we have, as is, to another location to be processed; we can think of some intermediate avenues.

I think the sense I get this morning from some of the questions and comments from the committee members is that we are approaching a point here, because of the escalating cost and other considerations, where the committee, the Congress, and the Army, DOD, the citizens, and so on have got to a point where everybody is willing to take a time-out and say let's do a fair assessment of what our options are before we continue marching down this road

that we have been on for a decade—without a shining performance, I might say.

So I think there are some options, Congressman Baesler, in the transportation thing. My personal feeling is, it should be looked at equally along with any other option and the law should be changed to allow that to happen.

Mr. HUNTER. Thank you, Mr. Williams. I thank the gentleman.

We will now go to Mr. Worley Johnson, who is chairman of the Kentucky Chemical Demilitarization Citizens Advisory Commission.

Mr. Johnson, thank you for being with us.

STATEMENT OF WORLEY JOHNSON, CHAIRMAN, KENTUCKY CHEMICAL DEMILITARIZATION CITIZENS' ADVISORY COMMISSION

Mr. JOHNSON. Thank you. On behalf of the citizens of Kentucky and the Kentucky Chemical Demilitarization Citizens Advisory Commission, thank you for this opportunity to make our activities and concerns heard and recorded.

My name is Worley Johnson. I am professor and director of the environmental health science program at Eastern Kentucky University and chair of the Kentucky Citizens Advisory Commission.

The 1993 Defense Reauthorization Act directed the Secretary of the Army to establish citizens advisory commissions in each of the States containing 5 percent or less of the flat chemical weapons stockpile. The act also directed that each Commission be composed of nine members appointed by the Governor and directed the Commission to be a conduit for citizens' input into the Chemical Stockpile Disposal Program.

To carry out our mandate, the Kentucky CAC held a series of meetings in the region. All meetings were publicized and attracted hundreds of citizens. At these meetings we discussed NRC reports, we provided citizens with updated information on the chemical weapons program, we listened to technical speakers and representatives from the Army and National Research Council.

Our efforts resulted in the citizens unanimously agreeing to developing criteria and recommendations describing their position regarding chemical weapons disposal. The key criteria are as follows:

No. 1, the overwhelming majority of Kentucky residents are convinced that on-site incineration should not be chosen. This conviction is based on considerable thought, study, and evaluation over the past decade. This is especially true for sites such as the Bluegrass Army Depot located so close to densely populated areas.

Kentucky State government has also made strong statements in opposition to incineration and passed legislation to provide for strict permitting requirements regarding stack emissions.

No. 2, safety should be the primary selection criterion when selecting the disposal technology and should come before consideration of cost, efficiency, or politically determined deadlines.

No. 3, safety must include the assessments of risk from long-term, low-level exposure as well as from accidents.

The risks to the public's health have not been assessed. The fact that the National Research Council never included a public health

professional reflects the frustration we have felt to attempt to include such information in the overall study of baseline technology.

No. 4, the chosen alternative should use closed-loop or no-stack technology. End products should be collected, stored, and tested prior to final release and disposal.

No. 5, future use of any disposal facility is totally unacceptable. Once constructed and chemical agents are destroyed, there will surely be pressure to convert the facility for continued use in destroying other munitions and hazardous waste in the region. Such circumstances would result in longer and unpredictable risk to the health and safety of local residents and threaten the economic viability of the region.

Finally, No. 6, any use of quantitative risk analysis must include an explicit definition of the assumptions used and written in terms citizens can understand. Citizens must participate in the process of defining the risk and must understand and accept the assumptions on which the analyses are based.

Now, as stated earlier, the citizens also made nine recommendations in the initial report. I have included all of those for the record but will only mention two significant ones. No. 1 recommendation: The citizens urge immediate funding and implementation of research and development efforts to evaluate alternatives to incineration. And the second: Citizens recommend re-evaluation of chemical stockpile stability, especially the troublesome M55 rockets we heard about earlier, and should be conducted in conjunction with independent oversight in all phases.

Stockpile stability determines the time available to develop alternatives. Citizens recommend that these construction deadlines be determined by the condition of stockpiles and the availability of safe and disposable technologies and support the extension of congressional and treaty deadlines accordingly.

Present GAO studies tell us that the M55 rockets are safe until the year 2043. We heard about another study that says 2013; another is 2098. The former NRC chair told our citizens at a meeting last year that they could blow at any moment, and the personnel who work with the rockets every day at the depot tell me in confidence that they are in great shape for their age. I would need to reassess then the risk at each facility.

Citizens and CAC members feel the Chemical Demilitarization Program is being driven by artificial time lines, not safety. Public Law 99-145 talks of a primary commitment to safety. Let us adhere to that law.

After 2 years of listening and learning, I have gained a great deal of respect for the citizens of this region. A large number of them have continued to be supportive of our efforts and have been involved for over 10 years. Now I share their concern and am in complete agreement with them of their right to be part of the public-policy-making process.

Incineration is no longer an option in Kentucky. The citizens of Kentucky will fight the plan to incinerate every step of the way. However, if they are made part of the decision-making process and an acceptable alternative for disposal is adopted, they will work just as hard and cooperate to the fullest to make sure these hideous weapons are destroyed.

Thank you.

Prepared Statement of Worley Johnson

**Report to the Procurement Subcommittee of the House
National Security Committee**

**By the Kentucky Chemical Demilitarization Citizen's
Advisory Commission**

July 13, 1995



Kentucky Demilitarization Citizen's Advisory Commission

105 Fifth Street
Richmond, KY 40475

Phone: (606) 625-1528
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On behalf of the citizens of Kentucky and the Ky. Chemical Demilitarization Citizen's Advisory Commission, thank you for this opportunity to make our activities and concerns heard and recorded.

Before giving verbal testimony, I request that the entire report be made a part of the permanent record.

The 1993 Defense Reauthorization Act directed the Secretary of the Army to establish a Chemical Demilitarization Citizen's Advisory Commission (CAC) in each of the three states containing five percent or less of the national stockpile. States having more than five percent of the stockpile were permitted to form CACs, but not required. To date, CACs exist in all the states containing chemical weapon stockpiles.

The Act directs that each Commission be composed of nine members appointed by the Governor and indeed in April of 93, Governor Brereton Jones appointed myself and eight other members to the Commission. Those initial appointees included;

Dr. Douglas Hindman, Harry Moberly Jr, William Mitchell MD, Katherine Flood, Diane Parrish, Worley Johnson; and two representatives of state government, Valerie Hudson and James Everett.

The Commission met for the first time in August of 1993 and adopted the following Mission statement to guide our efforts:

To provide a mechanism for the thorough and objective exchange of information among the citizens of Kentucky, the Army and other organizations involved in the chemical weapons demilitarization program.

Over the next few months the Kentucky CAC held a series of meetings in the region. All meetings were publicized in advance, open to the public and lasted approximately three hours.

We discussed alternative technologies, included brief updates on the chemical weapons program, and the activities of the CAC. We invited technical speakers to explain what some of the alternative technologies might look like in actual operation. Speakers from the Army and the National Research Council visited our public meetings on two occasions.

Early on the citizens realized that the Alternatives Report was too technical for them to use in choosing an alternative technology, and therefore decided to set criteria to be used in evaluating disposal options.

With no coaxing from the CAC at these public meetings, the citizens listed ten criteria and made nine recommendations.

The full report will list all criteria and recommendations, I will read a chosen few.

1. The overwhelming majority of Kentucky residents are convinced that on-site incineration should not be chosen. This conviction is based on considerable thought, study and evaluation over the past decade. This is especially true for sites such as the Bluegrass Army Depot located so close to densely populated areas.
Kentucky State Government has also made strong statements in opposition to the baseline technology and passed legislation to provide for strict permitting requirements regarding stack emissions.
2. Safety should be the primary selection criterion when selecting a disposal technology and should come before consideration of cost, efficiency or politically determined deadlines.
3. Safety must include the assessment of risks from long-term, low level exposure as well as from accidents. The risks to the public's health have not been assessed. The fact that the National Research Council never included a public health professional reflects the frustration we have felt to attempt to include such information in the overall study of the baseline technology. (See Appendix IV)
4. The chosen alternative should use "closed loop " or "no stack" technology. End products should be collected, stored and tested prior to final release or disposal.

5. The chosen technology should be waste stream specific. Future use of any disposal technology is totally unacceptable. If a facility uses general purpose technologies, there will surely be pressure to convert it for continued use in destroying other hazardous materials in the region. Such circumstances would result in longer and unpredictable risks to the health and safety of local residents and threaten the economic viability of the region.
6. The review of technologies should include an assessment of alternatives for handling munitions and moving them from the storage igloo to the disposal facility. Many citizens believe that movement of the munitions --on or off post-- may be the most dangerous aspect of the disposal process.
7. Any use of quantitative Risk Analysis must include an explicit definition of the assumptions used and written in terms citizens can understand. Citizens must participate in the process of defining the risks and must understand and accept the assumptions on which the analysis is based.

As stated earlier, the citizens also made nine recommendations in its initial report to the Army.

I will only read a couple that may not be mentioned in some fashion by the other panelists. The entire list of recommendations is in the full report. (Appendix 1)

1. The citizens urged immediate funding and implementation of research and development efforts to evaluate alternatives to incineration.
2. The citizens recommend re-evaluation of stockpile stability (especially the M-55 rockets) and conducted in conjunction with independent oversight during all phases.

Stockpile stability determines the time available to develop alternatives. Citizens recommend that the destruction deadlines be determined by the condition of the stockpile and the availability of safe and effective disposal technologies, and support the extension of congressional and treaty deadlines accordingly.

We have been told that the M-55 rockets are safe until 2013, the NRC Chair told us at a public meeting last year that they could blow at any time, and personnel who work with the rockets every day say they are in great shape. We need to reassess the risk at each facility. Citizens and CAC members feel the Chemical Demil program is being driven by time lines and erroneous treaties, not the overlying concern which is supposed to be safety. Public law 99-145 talks of a primary commitment to public safety. Let us adhere to that law.

In the letter inviting us here today, it stated that the purpose of this hearing was to assess measures that could be considered to reduce the overall costs of the program while minimizing total risk and ensuring maximum protection for the environment, the general public, and the personnel involved in the destruction of lethal chemical agents and munitions.

If, indeed, these are the considerations, the citizens and the CAC members of Kentucky believe that incineration is not the technology of choice.

A final note. Prior to being appointed to the CAC and voted in as Chairperson, I was involved in this process only on the fringes. I had not personally formed an opinion. Being a scientist, I needed more information and needed to talk with more people in the know from both sides.

After two years of learning and listening, I have gained a great deal of respect for the citizens of our region. A large number of them have continued to be involved in this issue since the beginning, over 10 years ago. In that time they have become very knowledgeable of the Chemical Weapons Disposal Program and the alternatives to the baseline technology. I now feel their concern and am in complete agreement with them and their right to be part of the public policy making process.

Incineration is no longer an option. The citizens of Kentucky will fight the plan to incinerate every step of the way. However, if they are made part of the decision making process and an acceptable alternative for disposal is adopted, they will work just as hard and cooperate to the fullest to make sure these hideous weapons are destroyed.

Aside from meeting with the community to discuss the NRC's "Alternative Technologies for the Destruction of Chemical Agents and Munitions" report, our CAC was asked to submit comments regarding the NRC 1994 report, "Recommendations for the Disposal of Chemical Agents and Munitions" Included in Appendix II is a summary of this report. Our CAC was then asked to review and submit comments regarding the "U.S. Army's Alternative Demilitarization Technology Report for Congress" April 11, 1994. Included in Appendix III is our full report. In essence, our CAC and citizens concluded that the Army's report did not fulfill the Congressional mandate to look carefully at alternatives and recommended that the Army's report be rejected as inadequate and incomplete.

The Kentucky Citizen's Advisory Commission offers special thanks to the Kentucky Chemical Stockpile Emergency Preparedness Program (CSEPP). CSEPP continues to support our group by paying my expenses for this appearance in Washington and keep our CAC account in order.

The Kentucky CESEPP continues to progress. A new state-of-the-art Emergency operations Center was dedicated in April. The center houses Madison County's Emergency Management Agency, as well as the CSEPP Program. The building also serves as the command center for a 23-siren outdoor warning system and an 800-megahertz communications system that links all of the county's emergency response agencies. A new indoor warning system is expected to be fully installed by the end of the calendar year; when completed it will provide a tone-alert radio similar to NOAA weather radio to over 1,000 residences and buildings in the Immediate Response Zone (IRZ). Both the sirens and the tone-alert radios have tone and voice message capabilities and can warn Madison County residents of a number of different threatening situations, including an accident involving chemical munitions stored at the Bluegrass Army Depot.

Mr. HUNTER. Thank you very much, Mr. Johnson. We appreciate your testimony as well.

We will now move to Mr. Jim Harmon, who is cochairman, Alabama Chemical Demilitarization Citizens Advisory Commission.

Sir, thank you for being with us.

STATEMENT OF JIM HARMON, COCHAIRMAN, ALABAMA CHEMICAL DEMILITARIZATION CITIZENS' ADVISORY COMMISSION

Mr. HARMON. Thank you, Mr. Chairman.

Mr. Chairman, subcommittee members, thank you for the opportunity to speak before you today on an issue which is extremely important to the citizens of Alabama.

I am Jim Harmon, an engineer by training and by education. I have been intimately and actively involved in this issue for over 3 years now. The CAC's, as Mr. Johnson told us, were formed, authorized, and created by Congress to be the liaison and the communication channel between the Army and the citizens. These are created out of a need for quality current information which had not been forthcoming from the Army.

Gentlemen, the Army is proceeding full speed with their baseline incineration program while ignoring the local citizens' input into the destruction program. This is directly opposite to the recommendations of the National Research Council, the Army's own Battelle report of 1994, as well as the congressional intent in establishing the Citizens Advisory Commission.

I would like to speak with you about two issues today of concern to the citizens of Alabama and the citizens advisory commission. First, the Army has consistently stonewalled and patronized the citizens advisory commission and the citizens while they proceed with their program. Let me give you some examples.

First, management just recently revised a long-standing gag order on local personnel who could not communicate or speak locally. Anniston Army Depot personnel were forbidden to speak with the CAC or citizens group on this program. All inquiries were forwarded to Aberdeen, MD, which often became a black hole producing no response. We need access to answers and people.

No. 2, the Army consistently delays responding to CAC and citizens' questions and inquiries. Delays have extended up to 9 months. Promised response dates are routinely missed; sometimes no response at all was received. This is not being open, honest, and forthcoming to the public. This is also a current situation.

On September 14 of last year, Colonel Coverstone committed to our Citizens Advisory Commission to have us heavily involved in the development of the health risk analysis that was being developed for Anniston. This was recommended by the National Research Council and Battelle.

However, the risk assessment was submitted to the Alabama Department of Environmental Management this spring without so much as one phone call to any CAC member. Again, we were told what we wanted to hear, and the Army did what they wanted to do.

The Army has consistently changed the players interfacing with the CAC and the citizens and needs time to do a new and much better job, but it never happens. Typically the new players plead

ignorance of everything except the party line because they are new or not prepared for the meetings.

Also, No. 5, the Pentagon's denials of chemical weapons exposure in Desert Storm in the face of congressional inquiries and thousands of sick veterans is alarming to the citizens of Anniston who also fear the Army would deny any responsibility for any safety or health effects due to incineration of chemical weapons.

No. 6, the Army funded the Citizens Advisory Commission with \$25,000 last year but restricted its use to secretarial expenses. My travel and appearance here today are at my own expense and are not reimbursable from our funds or any other funds.

The National Research Council held a conference in Utah and invited all the CAC chairs to attend, but at their own expense. Very few attended. I think this is another example of lip service instead of cooperation. The CAC's need the ability to use these funds to do our job and serve the communities we represent as you intended.

This brings me to my second issue. Some members of the CAC and many citizens want aggressive research into neutralization as a way to destroy this stockpile in Anniston. We have four points.

In the first attachment you will find our, the CAC's, recommendation to Congress of last year where the CAC asked for aggressive research and also a neutralization risk assessment permit application. The neutralization risk assessment permit applications have not been done, and the Army refuses to do those. While the research to date on neutralization has been less than asked for, the recent results have exceeded the Army's expectations and are very promising.

Second, attachment 2 is our CAC's letter to Congress requesting comments of several hundred citizens on this program. Please note that of the hundreds of written comments received by our CAC and forwarded to Congress last year, 96 percent were in opposition to incineration as a means of destroying the stockpiles. These citizens want the safer, cost-effective method of neutralization used in Anniston.

Third, the NRC and Battelle both recommended that the local citizens have a voice in determining the method of destruction of the stockpile. The Army has totally ignored these recommendations in Anniston.

Fourth, and last, the NRC's recommendation on neutralization and subsequent transportation to another site for destruction has gathered a lot of support in the community in the last 60 days.

Members of the committee, in conclusion, the Army has not been and is not dealing with the CAC and citizens of Alabama in good faith, or even as intended by Congress, nor as recommended by the NRC and Battelle Corporation. For the program to be successful in Anniston and to let us destroy these weapons, we need the full cooperation of the Army, not stonewalling and patronization. This includes aggressive research into neutralization at Anniston if it will enhance the safety of the community and the workers as well as save money.

I would like to deviate just a moment and touch on three points from earlier testimony. Looking at the risk assessment chart—and Mr. Nunn alluded to changes in risk assessment—the greatest risk to the stockpile storage in Anniston is an airplane crash directly

into an igloo. The CAC, upon reading this, asked for restricted airspace above the depot, and that was denied. That would have significantly reduced the storage threat in Anniston.

The idea of neutralizing bulk agent: Once you use the reverse assembly program and take the weapons apart, all of the agent is pumped into bulk storage. Every site is a bulk storage site during the process. So there is no reason not to look at every site for neutralization, because all the agent itself is going to be in bulk storage before it is processed for destruction.

The last thing: General Orton's chart shows that JACADS has destroyed over a million pounds of agent using incineration at JACADS. In the 1980's the Army destroyed over 8 million pounds of agent utilizing neutralization. So it is not an unknown or an unproven technology.

The citizens of Alabama appreciate the opportunity to be represented here today, and I thank you.

TESTIMONY OF JIM HARMON
 VICE CHAIRMAN
 ALABAMA CHEMICAL DEMILITARIZATION
 CITIZENS ADVISORY COMMISSION
 ANNISTON, ALABAMA

BEFORE THE PROCUREMENT SUBCOMMITTEE
 COMMITTEE ON NATIONAL SECURITY
 U.S. HOUSE OF REPRESENTATIVES

WASHINGTON, D.C.
 THURSDAY, JULY 13, 1995

Mr. Chairman, distinguished members, ladies and gentlemen, my name is Jim Harmon, and I am the vice chairman of the Alabama Chemical Demilitarization Citizens Advisory Commission in Anniston, Alabama, home of Anniston Army Depot.

I bring the warm regards of our chairperson, Dr. Doris Gertler, for your invitation to her to testify before you. She also sends her regrets that a previous engagement keeps her in Alabama today. In addition, I also bring the regards of the other seven members of our commission.

As information, several members have visited the Tooele facility in Utah, including two new members who returned just two weeks ago. They returned impressed with the professionalism of the employees they met with.

So we deeply appreciate the opportunity to come before this august body, updated as to the latest developments, and to share some of the concerns we have about the chem/demil process and the procedures the Army has in communicating with the people in the community surrounding the depot.

The subject and timing of this hearing are of particular interests to our commission and the people around the Anniston Army Depot. Yesterday, the depot began the reconfiguration process that the CAC recommended to separate the propellant from certain of the chemical agent projectiles stored at the base. This is not an easy process and certainly not without concern to some who live nearby and those who are involved with the program.

The two types of munitions scheduled for this separation and restorage process are the 4.2-inch cartridge and the 105mm cartridge. These munitions are only part of the chemical weapons stockpile at Anniston, but just this process is expected to take approximately three years to accomplish.

We applaud this activity. However, while an environmental assessment in 1991 determined that there may be no significant impact to the community as a result of the reconfiguration process, we believe that whenever personnel move stored munitions the chances for a mishap are increased.

We applaud the establishment of the Chemical Activities Command element at the Anniston Army Depot. We understand that the year-old gag order has been removed and have been told that efforts at greater communication with the CAC and the general public are underway. We commend them for that action but strongly denounce the gag order and the consequences that currently stem from it.

Silence or stonewalling is not the greatest confidence builder but breeds distrust.

Up to this point, it has taken an unreasonable amount of time—up to nine months—to receive responses from the Army to formal inquiries by our CAC. Many inquiries received promises of responses that just never came.

In September of 1994, Col. Coverstone committed to our CAC that we would be fully involved in the protocol development for Anniston's risk assessment. In November of 1994, the Army's own study by Battelle recommended that the Army involve community residents in the risk assessment process. This spring, we discovered that this protocol had been completed and submitted to the Alabama Department of Environmental Management without so much as a single phone call to any member of the CAC.

The Army was generous enough to provide some funds for CAC administrative expenses, but restrictions placed on the use of the funds makes them prohibitive. For example, travel. My expenses today to appear before this Committee are not reimbursable

from the Army's allocated funds. We request adequate funding with the ability to use those funds properly in our work.

We also urge that the Anniston Army Depot emergency operations command center, which currently is manned only eight hours each day, be increased to cover the entire 24-hour day until reconfiguration, storage and destruction activities have been completed.

The C.A.C. is also quite concerned with what we perceive to be the Army's definition of maximum protection for the community as mandated by Congress. The Army has been extremely slow in delivering finished, paid for, software such as evacuation time estimates models. In addition, their new FEMIS operation software and the hardware to run it is way past due. We are also concerned that the 800 MHz communication system that seems an absolute necessity, may not be properly funded.

A year ago, our commission and others made recommendations to Congress based upon citizen input and the research and evaluation by members of the commission. Seven of the recommendations have been acted upon, including insuring that the transportation of any chemical weapons, materials, toxic or hazardous waste to Anniston Army Depot for storage, processing or destruction before or during the demilitarization process be prohibited by federal law.

Congress is to be congratulated that this is now the law of the land, and none of these weapons stored at Anniston or at other facilities can currently be moved without violating federal law.

We also encourage aggressive research into alternative means of disposal of the weapons, but we recognize the need to move with dispatch when it comes to their destruction.

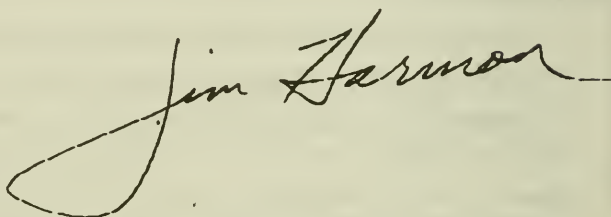
This morning you heard from the NRC. We continue to support its research and recommendations, but any time during storage and demil activities at AAD proven alternative technology is developed for large scale destruction, the CAC wants the Army to thoroughly evaluate that technology and its potential use in Anniston.

We urge the Army to act much more efficiently and professionally to clear up the errors submitted in their applications to get the necessary state environmental permits to begin construction, which has been complicated by the recommendation of the Base Realignment and Closure Commission to close Ft. McClellan.

In closing, Mr. Chairman, we urge Congress to ratify the proposed treaty document prepared between our country and Russia that calls for the demilitarization of these weapons. Its' goal is a logical step that can only improve the safety of both nations and the World.

We have enclosed copies of correspondence from June of last year between the CAC and Congress with our conclusions, recommendations and citizen input and a copy of our input to Col. Coverstone in February, 1994, regarding the NRC's February 7, 1994, report to the Army.

That is the end of our testimony, and we thank you.

A handwritten signature in dark ink, reading "Jim Harmon". The signature is written in a cursive style with a large, sweeping loop at the beginning of the first name.

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Alabama Chemical Demilitarization
Citizens Advisory Commission
P.O. Box 1174
Anniston, AL 36202
June 9, 1994

The Honorable Ronald V. Dellums
Chairman, Armed Services Committee
2121 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman:

The Alabama Chemical Demilitarization Citizens Advisory Commission (CAC) was authorized by the 1993 Defense Authorization Act and charged with responsibility to receive citizen and state concerns into the ongoing program of the Army for the disposal of the lethal chemical agents and munitions in the stockpile in the state of Alabama.

On April 14, 1994, the CAC received for review the U.S. Army's Demilitarization Technology Report for Congress. The CAC's review has included a number of public meetings with in-depth discussions by various experts in the field of chemical weapons and their destruction. Three members of the CAC and several local community leaders have visited the Tooele, Utah, demilitarization facility.

The concerns of the state and citizens were solicited by the commission and encouraged by the local media. To broaden the scope of understanding of community concerns, members of the commission met with many citizens, local elected officials, chambers of commerce, civic clubs, and conducted public meetings. To their credit, many Alabama citizens have taken the time to communicate to the commission their views and ideas, which have been beneficial in the formulation of our response. We appreciate the prompt response to questions and requests for information by all concerned. We also appreciate the time and effort of consultants who participated in our discussions.

CONCLUSIONS:

As a result of this process the members of the commission have reached these conclusions regarding citizen and state concerns:

1. In view of the current storage risk of the chemical stockpile at Anniston Army Depot (AAD), the community is committed to the safe and prompt destruction of the chemical weapons and munitions presently stored at AAD in a manner which provides for the maximum safety and protection for the employees, the community, and the environment.
2. The great majority of the citizens in the AAD community seem very apathetic concerning the method of destroying the chemical weapons stockpile.
3. There are, however, two small groups of citizens who have spoken out, with one group strongly opposed to incineration and the other supportive of incineration.
4. The group that opposes incineration as the destruction process is a seemingly well-informed and much more adamant group than the group that supports incineration.

RECOMMENDATIONS:

In consideration of state and citizens' concerns and as a result of citizens input and the members' own research and evaluation, the Alabama Citizens Advisory Commission makes the following recommendations to Congress:

- 1) The transportation of any chemical weapons, materials, toxic or hazardous waste to AAD for storage, processing or destruction before or during the demilitarization process be prohibited by federal law.
- 2) The entire demilitarization facility be prohibited by federal law from any use other than destroying the chemical weapons stockpile currently stored at AAD.

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3) Existing federal law, requiring that the demil facilities be dismantled immediately after the chemical weapons stockpile presently stored at AAD is destroyed, remain in effect.

4) A complete and current site-specific risk analysis for Anniston be conducted as required by the Environmental Protection Agency and as requested by the National Research Council in January, 1993, and February, 1994. This analysis should account for long term, latent health effects. This risk analysis should also include the risk of storage, disposal by incineration and disposal by neutralization. The Army should follow the recommendation of the National Research Council and reconsider the schedule at AAD after the risk analysis is completed.

5) Research and development on neutralization be "fast tracked" and any safety enhancements be applied at AAD throughout the demilitarization process.

6) The Army expedite the permitting process and evaluate dividing its current permit request into two separate parts, one for the reverse assembly (demil) part and one for incineration (destruction). This could allow construction of the longer-lead-time reverse assembly complex to proceed without being held up waiting for the incineration permit.

7) The Army expedite a separate application for a neutralization permit in parallel with the incineration permit in order to allow for maximum flexibility and safety and to prevent any delays in destroying the GB M-55 rockets at AAD. This should not interfere with the incineration permit.

8) The Army comply with the NRC recommendation to immediately reconfigure the stockpile if, as anticipated, it will reduce the risk to the workers and the community.

9) The Army immediately implement all of the recommendations contained in the NRC's two reports of May, 1994. All fifteen recommendations in the Review of Monitoring Activities should be made a requirement at AAD in order to eliminate the shortcomings and deficiencies described. All six of the recommendations in the Evaluation of the JACADS Operational Verification Testing Part II should be incorporated in the design at AAD to maximize safety and avoid the mistakes and shortcomings of the JACADS program.

10) The Army's Contingency Plan for destroying all of the M-55 rockets in a six month period should be evaluated for possible implementation at AAD. If the Army has the capability to safely destroy these rockets which pose the greatest danger to the community and the workers within six months, instead of the baseline timetable, it should be given the very highest priority.

11) The Army evaluate eliminating the dunnage incinerator from the program and utilizing the landfill option. This should result in substantial dollar savings to the taxpayers as well as enhance safety by simplifying the complex control and monitoring system.

12) The Army vigorously follow the NRC's recommendation that as research and development, as well as operating experiences, provide technologies and procedures which minimize risk to the community and the workers, such technologies be implemented at AAD during construction, systemization, or operation.

13) The Army develop a program of increased communication with the public in the Anniston area as recommended by the NRC. The CAC and the citizens need at least quarterly updates, progress reports, and status reports of outstanding questions with emphasis on risk analysis, permitting, alternate technologies, charcoal filters, and any other actions being taken to reduce risk and danger to the community.

14) Responsibility be given to an independent authority to oversee the demil program with the ability to monitor compliance regulations and changes in the program to ensure safety for the workers and the community.

15) The Army immediately evaluate the condition of the chemical weapons stockpile with special attention given to the M-55 rockets as recommended by the NRC.

16) After the new site-specific risk analysis is completed, the National Research Council evaluate its seven recommendations of February, 1994 which were based on previous risk analysis and restate its suggested destruction option.

AIR I

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the letters and petitions received by the Citizens Advisory Commission will be forwarded under separate cover for your review. The majority of this correspondence opposes incineration.

The CAC thanks the respective Armed Services Committees for their serious consideration of these recommendations and is prepared to answer your questions.

Respectfully submitted,

Alabama Chemical Demilitarization
Citizens Advisory Commission

Lucius Fleming
Lucius Fleming

Don Green
Don Green

Coris Certler

Jim Harmon
Jim Harmon

Jim Harmon

Will Holcomb, Jr.
Will Holcomb, Jr.

James Keeling
James Keeling

Craig Kneisel / JPK
Craig Kneisel

Craig Kneisel

Joseph Kingston
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Bill Miller
Bill Miller

c: Governor Jim Folsom, Jr., Senator Howell Heflin, Senator Richard Shelby,
Congressman Glen Browder, Congressman Tom Bevill, State Senator Doug Ghcc,
State Representative James Campbell

ALABAMA CHEMICAL DEMILITARIZATION
CITIZENS ADVISORY COMMISSION
P.O. Box 1174, Anniston, AL 36202

The Honorable Ronald V. Dellums
Chairman, Armed Services Committee
2120 Rayburn House Office Building
Washington, D.C. 20515

June 10, 1994

Dear Mr. Chairman,

The Alabama Chemical Demilitarization Citizens Advisory Commission (CAC) issued its report on the U.S. Army's Demilitarization technology Report for Congress to you on June 9, 1994. In that report, we stated that copies of the citizens' correspondence to the Citizens Advisory Commission would be forwarded to you. Enclosed you will find copies of the correspondence received by the CAC through June 8, 1994.

The overwhelming majority (over 96 %) of these hundreds of letters, position papers and petition signatures are opposed to Incineration as a means of destroying the Chemical Weapons stockpile stored @ Anniston Army Depot. The majority of these people prefer Neutralization as a means of destruction.

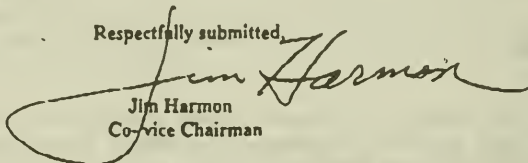
The National Research Council on page 26 of their February, 1994 report states that "One of the paramount issues is the concern of local citizens about the impact of the demilitarization program on their communities... Those responsible for decisions on disposal strategies should consider the recommendations of local citizens as well as those of this committee."

As with other issues of our times - crime, education, drugs housing, etc. - the thousands of citizens who have made their opinions known are a minority of the total population. However, these thousands of concerned citizens have made their feelings and concerns known very clearly. Many citizens are relying on the CAC, Congress and the Army to implement the necessary safety precautions.

The 1994 Defense Authorization Act allows for citizens' input through the CAC. This, in addition to our report of June 9, is our input to date.

The citizens of Alabama and the CAC appreciate the time and consideration given to our concerns in the Demilitarization issue.

Respectfully submitted,


Jim Harmon
Co-Vice Chairman

cc w/ att: Governor Jim Folsom Jr., Senator Howell Heflin, Senator Richard Shelby,
Congressman Glen Browder

cc w/o att: Congressman Tom Bevill, Senator Doug Ghee, Representative Jim Campbell

ATTN
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STATE OF ALABAMA

GOVERNOR'S OFFICE
MONTGOMERY 36130JIM FOLSOM
GOVERNOR

July 6, 1994

The Honorable Ronald V. Dellums
Chairman, Armed Services Committee
2120 Rayburn House Office Building
Washington, D.C. 20515

Dear Mr. Chairman:

In response to and in accordance with Section 172 (a) (2) of the National Defense Authorization Act for fiscal year 1993, I have established a Chemical Demilitarization Citizens Advisory Commission (CAC) for the State of Alabama. The CAC will receive citizen and state concerns regarding the army's program for disposal of chemical agents and munitions currently stored at the Anniston Army Depot.

After careful review of the report issued by the CAC on June 9, 1994, I have concluded that the report is reasonable and sensible. I fully concur with the sixteen (16) recommendations issued in the report and strongly encourage Congress and the Army to implement them.

Furthermore, please be assured that I, along with the community surrounding the chemical stockpile at the Anniston Army Depot, am committed to the safe and prompt destruction of these chemical weapons and munitions. This should be done in a manner which provides for the absolute maximum safety and protection for the employees, the community, and the environment.

Sincerely,

Jim Folsom
Governor

Enclosure

cc: Congressman Tom Bevill
Congressman Glen Browder
CAC Members
State Representative Jim Campbell
State Senator Doug Ghee
Senator Howell Heflin
Senator Richard Shelby
Mr. Jim Warr, ADEM Director

RECOMMENDATIONS:

In consideration of the state's and citizens' concerns and as a result of citizens' input and the members' own research and evaluation, the Alabama Citizens Advisory Commission makes the following recommendations to Congress:

- 1) The transportation of any chemical weapons, materials, toxic or hazardous waste to AAD for storage, processing or destruction before or during the demilitarization process be prohibited by federal law.
- 2) The entire demilitarization facility be prohibited by federal law from any use other than destroying the chemical weapons stockpile currently stored at AAD.
- 3) Existing federal law, requiring that the demil facilities be dismantled immediately after the chemical weapons stockpile presently stored at AAD is destroyed, remain in effect.
- 4) A complete and current site-specific risk analysis for Anniston be conducted as required by the Environmental Protection Agency and as requested by the National Council in January 1993 and February 1994. This analysis should account for long term, latent health effects. The risk analysis should also include the risk of storage, disposal by incineration and disposal by neutralization. The Army should follow the recommendation of the National Research Council and reconsider the schedule at AAD after the risk analysis is complete.
- 5) Research and development on neutralization be "fast tracked" and any safety enhancements be applied at AAD throughout the demilitarization process.
- 6) The Army expedite the permitting process and evaluate dividing its current permit request into two separate parts, one for the reverse assembly (demil) part and one for incineration (destruction). This could allow construction of the longer-lead-time reverse assembly complex to proceed without being held up waiting for the incineration process.
- 7) The Army expedite a separate application for a neutralization permit in parallel with the incineration permit in order to allow for maximum flexibility and safety to prevent any delays in destroying the GB M-55 rockets at AAD. This should not interfere with the incineration permit.
- 8) The Army comply with the NRC recommendation to immediately reconfigure the stockpile if, as anticipated, it will reduce the risk to workers and the community.
- 9) The Army immediately implement all of the recommendations contained in the NRC's two reports of May 1994. All fifteen recommendations in the Review of Monitoring Activities should be made a requirement at AAD in order to eliminate the shortcomings and deficiencies described. All six of the recommendations in the Evaluation of the JACADS Operational Verification Testing Part II should be incorporated in the design at AAD to maximize safety and avoid the mistakes and shortcomings of the JACADS program.
- 10) The Army's contingency plan for destroying all of the M-55 rockets in a six month period should be evaluated for possible implementation at AAD. If the Army has the capability to safely destroy these rockets which pose the greatest danger to the community and the workers within six months, instead of the baseline timetable, it should be given the very highest priority.
- 11) The Army evaluate eliminating the dunnage incinerator from the program and utilizing the landfill option. This should result in substantial dollar savings to the taxpayers and enhance safety by simplifying the complex control and monitoring system.

12) The Army vigorously follow the NRC's recommendation that as research and development, as well as operating experiences, provide technologies and procedures which minimize risk to the community and the workers, such technologies be implemented at AAD during construction, systemization, or operations.

13) The Army develop a program of increased communication with the public in the Anniston Area as recommended by the NRC. The CAC and the citizens need at least quarterly updates, progress reports, and the status reports of outstanding questions with emphasis on risk analysis, permitting, alternate technologies, charcoal filters, and any other actions being taken to reduce risk and danger to the community.

14) Responsibility be given to an independent authority to oversee the demill program with the ability to monitor compliance regulations and changes in the program to ensure safety for the workers and the community.

15) The Army immediately evaluate the condition of the chemical weapons stockpile with special attention given to the M-55 rockets as recommended by the NRC.

16) After the new site-specific risk analysis is completed, the NRC evaluate its seven recommendations of February 1994 which were based on previous risk analysis and restate its suggested destruction option.

**ALABAMA CHEMICAL DEMILITARIZATION
CITIZENS ADVISORY COMMISSION
P.O. Box 1174, Anniston, AL 36202**

February 25, 1994

Colonel James Coverstone
Deputy for Chemical Demilitarization
110 Army Pentagon
Washington, D.C. 20310-0110

Dear Colonel Coverstone:

On February 9, 1994 the Citizens Advisory Commission of Alabama received the National Research Council report "Recommendations for the Disposal of Chemical Agents and Munitions" issued on February 7, 1994. The contents and recommendations of this report were explained and clarified by Dr. Carl Peterson and Mr. Charles Baronian during the Commission's meeting on February 16, 1994.

Despite severe time constraints for a thorough review and limited time for public notice of our February 16 meeting, we strongly support the need to safely and promptly destroy the chemical weapons and munitions presently stored at Anniston Army Depot[AAD] in a manner which provides for the maximum safety and protection for the workers, the community and the environment.

In view of the time constraints, it has not been possible to acquire and accurately measure citizen and State concerns regarding the NRC recommendations. Attitudes range from a majority who either do not seem to care about the problem or trust the government to "do the right thing", to a group that support the baseline technology to a group that either question or oppose incineration. However, we submit these concerns based upon our independent review and a collective but limited sampling of a cross-section of citizens.

1. We oppose the transportation to AAD of any chemical weapons or materials, toxic or hazardous waste for storage or destruction.

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2. We oppose the use of destruction facilities for any use other than destroying the chemical weapons and munitions stockpile presently stored at AAD.

3. We insist that any destruction facility be dismantled immediately after the chemical weapons and munitions stockpile presently stored at AAD is destroyed.

4. We agree with the recommendations of the NRC that an updated risk analysis be conducted as soon as possible to determine the relative risk of storage, handling and disposal of chemical weapons and munitions stockpiled at AAD. This updated risk analysis should explicitly account for latent health risks.

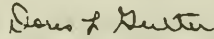
5. We agree that as site-specific risk analyses determine changes that will decrease cumulative total risk, the Army reconfigure the high risk stockpile at AAD to safer conditions prior to disposal.

6. Again in view of the time constraints, the CAC members have not reached a consensus on agent destruction technology. Accordingly, we request more information on the following:

- neutralization-based systems
- use of charcoal filter beds with fire suppression
- the decontamination and landfill option utilized for dunnage material at JACADS
- the decontamination to 3X with subsequent transportation option

The members of the Commission anticipate the Army's evaluation and response to our concerns. We appreciate the opportunity to review the Army's report to Congress, due on April 4, 1994 and to submit a more comprehensive response regarding citizens and State concerns on this most important issue.

Respectfully submitted,



Doris L. Gertler, Chairperson

Enclosure: Alabama Chemical Demilitarization CAC Proposal to the Anniston City Council And Calhoun County Commission.

ALABAMA CHEMICAL DEMILITARIZATION
CITIZENS ADVISORY COMMISSION
P.O. Box 1174, Anniston, AL 36202

Requested Proposal by the ALABAMA CHEMICAL DEMILITARIZATION CITIZENS ADVISORY COMMISSION to the Anniston City Council and Calhoun County Commission regarding the destruction of the Chemical Weapons presently stored @ Anniston Army Depot. We ask that you pass a resolution @ your next meeting containing the following position. Members of the CAC are available to review this w/ you and answer any questions you might have.

* WE SUPPORT THE NEED TO SAFELY AND PROMPTLY DESTROY THE CHEMICAL WEAPONS PRESENTLY STORED AT A.A.D.

* WE SUPPORT THE DESTRUCTION BE DONE IN A MANNER WHICH PROVIDES FOR "THE MAXIMUM SAFETY AND PROTECTION FOR THE WORKERS, THE COMMUNITY, AND THE ENVIRONMENT" AS REQUIRED BY FEDERAL LAW.

* WE STRONGLY OPPOSE THE TRANSPORTATION TO AAD OF ANY CHEMICAL WEAPONS, TOXIC OR HAZARDOUS WASTE FOR STORAGE OR DESTRUCTION.

* WE STRONGLY OPPOSE THE USE OF THE DESTRUCTION FACILITIES FOR ANY USE OTHER THAN DESTROYING THE CHEMICAL WEAPON STOCKPILE PRESENTLY STORED @ AAD.

* WE DEMAND THAT THE DESTRUCTION FACILITY BE DISMANTLED IMMEDIATELY AFTER THE CHEMICAL WEAPON STOCKPILE PRESENTLY STORED @ AAD IS DESTROYED, AS PRESENTLY REQUIRED BY FEDERAL LAW.

* WE REQUEST OUR ELECTED OFFICIALS TO PASS STATE AND LOCAL LAWS AND REGULATIONS TO ACCOMPLISH THE ABOVE AS SOON AS POSSIBLE.

The CAC also encourages civic, social, business, and religious groups to pass this resolution and send a copy to the CAC @ P.O. Box 1174, Anniston 36202.

Resolved on Feb 16, 1994 by the Citizens Advisory Commission.

Mr. HUNTER. Well, thank you, Mr. Harmon, for a very fine statement; a very candid statement, too; and that is what we are here for.

I would like to now recognize John L. Matthews, Major General, U.S. Air Force (retired), who is the chairman for the Utah Chemical Demilitarization Citizens Advisory Commission.

General, thank you for being with us. Please proceed.

STATEMENT OF MAJ. GEN. JOHN L. MATTHEWS, U.S. AIR FORCE [RETIRED], CHAIRPERSON, UTAH CHEMICAL DEMILITARIZATION CITIZENS' ADVISORY COMMISSION

General MATTHEWS. Thanks for the invitation, Mr. Chairman, and thank you for holding this hearing. We really appreciate being involved and your interest in this most important program.

We at Utah of course have been living with nearly half the stockpile for many years and have been also involved in incineration operations for some period of time at the CAMDS facility, so we are somewhat familiar with that kind of situation.

Since we live in an earthquake zone, one of our major concerns is the demilitarization of the stockpile, and therefore we as a citizenry do not have strong opposition to the incineration process. We anticipate since the plant is in place and nearly ready to start, that regardless of the determination of other types of destruction processes, our particular situation will probably be one in which we have an incineration process ongoing. Nevertheless, whenever you start a new large-scale operation like this, it is, in the minds of citizens, a significant change in the status quo, with all the potential uncertainty that status quo changes can produce.

Numerous presentations have been made regarding the higher risk involved in having the stockpile in place rather than the process of incineration. However, there is considerable activity necessary in the area of public safety concerns which local government entities must, in good conscience, respond to.

We are very pleased with the involvement of the National Research Council and their Chemical Stockpile Committee and the additional information that they provide, additional oversight that they provide in the process. We are grateful that that is going on.

We also have detected, at least in our commission, an increasing willingness on the part of the Army to be forthcoming with information to us. That has been a significant improvement, and we feel that improvement. We have not suffered some of the limitations that have been mentioned here by others.

We have had, however, significant concerns related to the CSEPP program and especially personal protective equipment for first responders. We have been trying to get that established for over 6 years, and we are still awaiting the Federal OSHA's approval of the appropriate equipment for first responders.

Donna Shandell, who is the CSEPP manager for the Army, herself put on the protective equipment which has been proposed and went through the test, and so the Army has done everything they can, but Federal OSHA seems to be the stumbling block.

Another issue of concern to us is off-post monitoring. The current program involves the fact that, if there is an incident, it is computer modeling that determines how we respond to the activity. We

feel that off-post monitoring is essential and that the Army has a responsibility to provide that out-post monitoring. At the present time we don't feel that that has been adequately addressed.

Mr. HUNTER. You have had that in the past—off-post monitoring. That is known as those 40,000 sheep that monitored that situation.

Mr. MATTHEWS. We would like a little more sophisticated monitoring, if we could.

Training is nearly under way. We are in a position right now where we have to start training our emergency responders, and we still don't have a personal protective equipment suit that has been approved by everybody concerned, so we consider that a major problem.

Naturally there are the environmental concerns that everyone has, and the State government has arranged so that they are present in the facility itself during operations to ensure compliance with State law regarding environmental regulations.

Utah is very interested in the alternative technology issue, as are the other commission members. We believe that even if it does not affect us directly, it will affect everyone in the future and may affect what ends up coming to Utah as a result of the destruction of chemical weapons. So we are very interested in that.

As you know, alternative technology is being studied at the CAMDS facility in Utah, and we are very supportive of that program and hope it receives additional funding and additional emphasis.

Finally, let me just summarize by saying we have some serious concerns about the cost of the program; and the costs to the States as well, one of the things that we don't spend a lot of time talking about. We talk about the cost to the Federal Government. There are also significant costs the States assume because of the nature of this threat to public safety and the requirement to involve environmental personnel, citizens' groups, and State government in dealing with the issue of the chemical stockpile and its demilitarization. So we are very anxious to see cost reductions, and we hope that those cost reductions include the ability of the States to reduce the costs that they now feel as a result of this program.

I would just like to say in closing that as I walked out into my garage in order to come to this hearing, I noticed a small ant walking across the garage floor. He stopped and looked up at me, and then he looked up at a shelf that I have in the garage on which there is a canister of Ant Begone. Then he turned and rapidly ran in the other direction, I assume because he saw me. But I thought to myself how significant that was as I was coming to this hearing, because he feels the same concern about that little canister of Ant Begone that the citizens of Utah feel about chemical demilitarization of half of the chemical stockpile in the United States. We live with this. We have lived with it in a variety of ways. We have cut down our sheep population with this process. So we know that it is a reality. But we also know that the continued existence of the stockpile without being demilitarized is a significant threat to our population, and we want to see that stockpile demilitarized as soon as possible.

Thank you very much.

Statement submitted to the
Committee on National Security, U.S. House of Representatives
by M/Gen. John L. Matthews (Ret.) JAF
Presented July 13, 1995, 9:30 a.m., 2118 Rayburn HOB
CAC Chairperson Tooele Chem/Demil Operations
Office of the State Military Advisor
116 Capitol Building, Salt Lake City, UT 84114

Introduction

The State of Utah has a history of support for military operations that pre-dates statehood. Pioneers, en route to settle the Salt Lake Valley, were solicited for volunteers by the federal government to participate in the Mexican Border War in the late 1840s. A battalion of soldiers was recruited from the group; the unit dubbed "The Mormon Battalion" marched from the Midwest to San Diego completing the longest such march of a U.S. Army unit in U.S. history.

Utah's geography has attracted a variety of military missions to the State including air to ground operations, military weapons testing, artillery and special forces operations, and many others. Some of the testing and resultant stockpiling of weapons has involved activities with the potential for significant danger to area residents and the environment.

While the activities on the Utah test and training range, Dugway Proving Grounds and Tooele Army Depot have in the past been viewed as dangerous unknowns, nevertheless, they have been well accepted by a majority of the population at large. Additionally, nuclear testing in Nevada has provided a source of hazard to Utah citizens, especially in the early years of such testing.

Chemical weapons bring with them an aura of extreme lethality and the specter of an invisible threat. Past efforts to promote the chemical weapons budget have in all likelihood

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added to the perceptions in this area since descriptions of their lethality were undoubtedly maximized in such discussions.

Utahns have been living next to 43% of the nation's chemical weapons stockpile for a number of years. In addition, incineration operations have been underway on a test basis at the CAMDS facility at Tooele South for a number of years without significant incidents.

Nevertheless, the prospect of commencing large scale operations in the new facility is in the mind of the citizenry a significant change in the status quo, with all of the potential uncertainty status quo changes can produce.

Numerous presentations have been received emphasizing the thesis that in the long term, the continued presence of the stockpile poses a more significant threat than the process of incineration. However, the commencement of the burn presents the perception of additional risk and generates considerable activity in the area of public safety concerns to which local governmental entities must, in good conscience, respond.

In the recent past there has been a noticeable improvement in the Army's public relations program in the Utah area regarding this activity. This has positively enhanced the communities' attitudes regarding their ability to rely on Army pronouncements regarding the facility and its operations. We laud this positive trend.

Another very positive program is the involvement of the National Research Council's Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program as a technically competent and disinterested party to evaluate the planning and preparations for the demilitarization activity. We, in Utah, consider this a most important part of the preparations for

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operation of the chem/demil plant.

CSEPP Issues

A reoccurring area of concern in Utah has been the area of CSEPP (Chemical Stockpile Emergency Preparation Plan). A substantial amount of the time utilized by the Utah Citizens' Advisory Commission has been focused on various aspects of this issue. A long-standing problem has been the area of personal protective equipment for first responders. Numerous agencies have been involved in this issue creating a bureaucratic nightmare in attempting to receive approval for specific equipment. Fed OSHA, Utah OSHA, the Center for Disease Control, FEMA, the Army, and fire fighter organizations, are involved in the process, with the result that it has literally taken years to attempt to obtain approval for the necessary equipment for first responders. An approval is imminent, but, as of this date, is still not finalized.

Another issue of major concern in the area of CSEPP issues is off-post monitoring. If an event occurs at the facility and agent migrates off-post, authorities are forced to rely on computer models rather than monitors which have capability of verifying the location of harmful levels of agent. While there are limits currently caused by the level of capability of monitoring systems and their portability, this is a matter of considerable concern to governmental entities and individual citizens.

Since computer modeling alone will not provide the information necessary to evaluate potentially affected areas following an event, it is essential that the Army accept responsibility to provide a reliable monitoring system beyond the boundaries of the base promptly following an

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event.

The training of local emergency responders and equipping and training in medical facilities which have the potential of receiving casualties is also an area of concern. At the present time there is considerable anxiety regarding this issue. Training and equipping of such individuals may prove to be the "long pole in the tent" in the preparations for commencement of live agent burn operations in Utah. The special programs group from the Center for Disease Control is planning a review of medical readiness in Utah at the end of August. I believe this will be helpful in insuring preparedness in this area.

Environmental Issues

Environmental issues are very significant as Utah prepares for the commencement of the burn. State law requires specific permits to be issued by the Department of Environmental Quality of state government in advance of the operations. Numerous guidelines are in place and demonstration of compliance is essential in order to insure that the plant is operating within Utah law. Continuing compliance requires day to day monitoring by state environmental officials.

Utah citizens are also very interested in the potential of Alternative Technologies for chemical demilitarization, even though they recognize that, in Utah, incineration will most likely be the operative technology for this portion of the stockpile. As you know, much of the testing of alternative technologies is done at the CAMDS facility in Utah. Some members of the commission see alternative technologies as a key to cost reduction in the future. If it is possible through low cost methods to turn toxic waste into less objectionable products then the issue of

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local disposal of such products becomes obviously less objectionable as well. We believe that all affected states should be willing to accept products which have been demilitarized to the level of hazardous waste and which have been produced in their states.

Political/Economic Issues

Another ancillary problem in Utah is the political/economic issue. Previous BRAC actions, which realigned Tooele Army Depot and closed most of its maintenance operations, including a completely new, state of the art, consolidated maintenance facility, were accepted by local officials with little complaint. However, red tape associated with acquiring and marketing these facilities to private organizations has left the community frustrated and angry. They consider their willingness to accept chem/demil operations a good faith action which should be reciprocated by the Army in assisting them with this challenge. Failure to do so, they feel, is justification for delaying the start of chem/demil operations until their economic challenges have been adequately addressed.

Cost Avoidance

One of the cost drivers in this program is the use of the terms "maximum safety" vs. "reasonable assurance," in describing the level of protection to be purchased at a site of this type.

In dealing with nuclear sites, as you know, the program provided "reasonable assurance," of safe operations. However, in this era of suspicion and criticism of federal government activities, the suggestion that we are unable or unwilling to fund a program that provides

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"maximum safety," is considered unacceptable.

I believe that we would do well to eliminate such terms and simply identify the program that we plan to use, define the specifics of such a program and and evaluate it on its merits. A thorough cost benefit analysis could eliminate the requirement for "gold-plated" safety systems, but insure high levels of protection.

There are substantial costs which states incur as a result of this program such as policy implementation, permitting, responding to potential emergencies, et cetera. While some of these areas are funded through CSEPP funding and agreements with, "permitting entities" not all costs are reimbursed. Chemical demilitarization is an expensive activity, not only for the federal government, but also for the states affected.

Summary

Major issues of concern as expressed to the Tooele Chemical Demilitarization Citizens' Advisory Commission as we approach commencement of operations at TOCDF include:

1. CSEPP issues

- a. Approved personal protective equipment for first responders.
- b. Adequate off-post monitoring capabilities in addition to computer modeling.
- c. Training and equipping of first responders and medical emergency response facilities and personnel.

2. Environmental Issues

- a. Compliance with Utah State environmental law demonstrated in advance of

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operations.

b. Continued compliance throughout the program is essential.

3. Alternative technologies

a. Utah citizens continue to have great interest in the alternative technologies research program.

b. Alternative technologies may hold promise for future production of environmentally acceptable products from chemical demilitarization.

4. Political/Economic Issues

a. BRAC Actions at Tooele Army Depot have generated significant political and economical challenges.

b. Local government officials believe that a linkage justifiably exists between such issues and the commencement of the chem/demil operations.

5. Cost Avoidance

a. "Maximum Safety" vs. "Reasonable Assurance" can produce unnecessary additional expense based on the terminology rather than the substance of the protection.

b. State costs generated by this program are not all reimbursed.

Mr. HUNTER. Thank you, General.

Just one question, too, before we move to Mr. Bennett. Maybe the gentleman in the back row might be able to help me a little bit. Maybe, General, you could help me—General Orton. Tooele versus Johnston Island with respect to capacity, those are big—both have large, large capacity, don't they?

General ORTON. Yes, sir, they do. Tooele has the larger capacity.

Mr. HUNTER. Tooele has the largest. To what degree? Is it twice as big or—

Mr. PROCIV. Let me make a point. I was going to clarify this during the Q and A. Johnston Island was not designed to be a large-capacity facility, it was designed just for stockpile on the island.

Tooele, however, has about twice the capacity that Johnston Island has because of the need to make it quicker. Any attempt maybe to consider Johnston Island for future demilitarization would really stretch out the schedule. Also, the plant's life probably wouldn't go long enough for us to do other parts of the stockpile.

Mr. HUNTER. The plant's life, where?

Mr. PROCIV. Just the life of the plant at Johnston Island.

Mr. HUNTER. At Johnston Island. What is the life expectancy at Johnston Island without intervention by Senator Inouye?

Mr. PROCIV. I would guess—I don't have the numbers here, but my staff told me it was just designed to survive long enough to survive during the duration of the operation.

Mr. HUNTER. Well, that is a pretty good plant life.

Mr. DECKER. Part of that is the difference. The surrounding environment relative to machinery and stuff is fairly friendly at Tooele. That is a pretty neat climate there. The Johnston Island environment is highly corrosive because of the salt air. You really are dealing in a problem area.

Mr. HUNTER. OK.

Mr. DECKER. Johnston Island has about half the capacity of Tooele.

Mr. HUNTER. OK. Thank you.

We now have Jim Bennett, director, Calhoun County, AL, Emergency Management Agency.

Jim, thank you for being with us, and the floor is yours.

STATEMENT OF JIM BENNETT, DIRECTOR, CALHOUN COUNTY, AL, EMERGENCY MANAGEMENT AGENCY

Mr. BENNETT. Thank you very much, Mr. Chairman, committee members.

My testimony will shift the focus for a moment to the congressional mandate of maximum protection for the citizens of Calhoun County in Alabama, specifically the plus or minus 70,000 folks who live in, work in, or go to school in the immediate response zone and the plus or minus 50,000 folks who live in, work in, or go to school in the protection action zone. I am also concerned for persons traveling through or visiting our county on a daily basis. On selected days and for selected events such as race weekends and major sporting events, our requirements for maximum protection can double or triple.

My written assessment and recommendation are based on five discreet Calhoun County CSEPP keys.

First, local elected officials are responsible for the congressional mandate of maximum protection of the general public, not CSEPP management officials.

Second, Calhoun County probably has the largest at-risk population in a CSEPP immediate response zone.

Third, Calhoun County CSEPP requirements are and have always been based on Federal CSEPP policy guidance standards and criteria documents, not Calhoun County wants.

Fourth, CSEPP in Calhoun County must be and always has been a bottom-up driven program. In other words, we have late available programmatic requirements on existing Calhoun County capabilities in order to determine CSEPP needs, CSEPP budgets, and CSEPP resources.

Fifth, the first several hours of a CSEPP response will be a stand-alone operational effort by Calhoun County. It will not be a State and/or Federal effort.

While some progress has been made as a direct result of CSEPP support, Calhoun County is woefully short of where it should be vis-a-vis maximum protection for the general public.

Since my assessment and program shortfalls have been specifically identified in the written statement, I will not address them again here. However, I would like to share five specific recommendations that I feel can better serve the CSEPP congressional mandate of the maximum protection for the general public.

First, reassess in a very public and candid way the complete risk associated with site-specific toxic chemical agent stockpile storage and destruction, independent of the destruction method. It is my opinion, based on chemical demil programmatic documents such as the final environmental impact statement, that our community risk is overstated, an overstatement that has been carried over to the CSEPP process.

Second, prioritize and allocate CSEPP funding to communities at great risk and where casualties would be the highest in the event of a toxic chemical agent accident or incidents. I believe CSEPP funding should be based on risk.

Mr. BENNETT. Third, implement a block grant program that provides timely annual funding directly but separately to both CSEPP counties and CSEPP States based on their requirements to carry out the maximum protection mandates.

Mr. BROWDER. Mr. Chairman, could I ask, Jim, would you elaborate on that last one just a little bit? Because I have been in the uncomfortable position of refereeing for the last few years, and I don't think it is simply between two players, the county and the State, who don't like each other. Just a lot of it has been poor direction from the Federal Government or unclear direction. So could you elaborate on that last point for just a minute?

Mr. BENNETT. In terms of implementing a block grant program?

Mr. BROWDER. Yes, talking about not only for the States but for the counties, specifically the relationship between the States and county and Federal Government.

Mr. BENNETT. In our case—and I can only speak for our community and our State—traditionally what happens, Congressman, is we prepare an annual requirement based on programmatic needs that is converted into a budget process.

The CSEPP budget is annually submitted and this year was submitted in June of this year for fiscal year 1996. That document goes to the State emergency management agency for their review and recommendations in many cases, which are not always in concert with what we think the requirements at the local level are. That document is then passed to the FEMA region, in our case FEMA Region IV in Atlanta, GA, for their review and recommendations. Then it is passed to Headquarters, FEMA. At that point I assume it goes across the river to the building, to the Pentagon, for their review, and now probably goes to Aberdeen Proving Ground for their review.

So frequently what has happened, in my opinion, is that when the decisionmaking process takes place regarding our requirements, the people who are making the decision are extremely far removed from the needs, and if there are issues regarding what should be funded and supported at the local level, frequently if it is a call based on available bucks, and if it is a call based on lack of knowledge of what is being asked for, frequently the dollars do not come directly to the county.

Mr. BROWDER. Is the problem one of the inherent differences, different agendas of people at the local, State, and Federal levels? Is it a problem of lack of clarity in the law and regulation spelling out their relationship? Or is it just human nature that we can't ever get a loan?

Mr. BENNETT. My view is, all of the above.

Mr. BROWDER. Which one could be fixed?

Mr. BENNETT. I think the thing that could be fixed, quite frankly, easily—and that is going to be one of my recommendations—the best way is to put a very small group of people in one room who are knowledgeable about the CSEPP program and give them the decisionmaking authority.

Specifically, I can refer you to an example. If I go to a meeting, the elected official of Calhoun County, I make the decision in meeting. If I go to another meeting or if—there are other people in that meeting who are representing other organizations or other agencies or other Federal bureaucracies, frequently they are not capable and have not been capable of making a decision.

So I think the easy fix, if I understand your question correctly, is to put a very small number of people, a site-specific team, in a room, let them decide what the real issues are, let it be heard coming from the person who is responsible for accomplishing and executing the mandates of this program, and when those three or four people walk out the room the decision is made, so as the document comes back down, there is no question about where the money is going and where the resourcing is going.

Mr. BROWDER. Thank you.

Thank you, Mr. Chairman.

Mr. HUNTER. Go ahead.

Mr. BENNETT. Going back to the prepared comments, my suggestion is to place funding where the rubber meets the road. For example, since 75 percent of the yearly CSEPP allocation goes directly to counties, place funding where maximum protection must be achieved; and, finally, place funding where it is most needed.

Fourth, the constantly changing and multilayered CSEPP management bureaucracy needs to be reduced. It becomes more evident each year that past and current CSEPP management structures and practices have not and do not work. Rather—and this is going to the point, Mr. Congressman, I was referring to—rather, form a small but knowledgeable CSEPP decision-making cadre for each site. This cadre should exist of IRZ county representative decisionmakers, one member per IRZ county; a State CSEPP decisionmaker, one member representing the State and the protective action zone counties; and a Federal CSEPP decisionmaker, one member representing the Federal bureaucracy.

The small team could and should make CSEPP decisions for each State, thereby eliminating most of the CSEPP management overhead with its faceless protocols and long delays which seem common to a constantly changing and multilayered bureaucracy.

Fifth, use previously submitted and annually updated life cycle cost information. For example, we have submitted that type of information in 1992, 1993, 1994, and we will submit it again in 1995. Use that rather than spending great time and effort on the recently initiated CSEPP road map baseline. Previous life cycle cost information provided realistic projections, at least for our county, that should have been and could have been placed into the long-range Army budgeting process.

Finally, I would like to publicly thank our congressional, our State, and our local elected officials for their continuing and untiring support regarding CSEPP. This support has been vital and critical to the limited success Calhoun County has achieved. I also thank you, Mr. Chairman, for this opportunity to comment on this vitally important program.

I will be happy to respond to your questions.

Statement Of

James (Jim) L. Bennett

**Director
Calhoun County, Alabama
Emergency Management Agency**

Before The

Procurement Subcommittee, Committee on National Security

Concerning The

Chemical Stockpile Emergency Preparedness Program

13 July 1995

Record Copy

Chairman Hunter and Committee Members

On behalf of Calhoun Countians, I appreciate the opportunity to provide a local assessment of the Chemical Stockpile Emergency Preparedness Program (CSEPP) and present what I believe to be prudent and worthwhile measures to reduce program overhead (cost and obstacles) while ensuring "maximum protection".

I feel it is important to share a little about Calhoun County in order for you to better understand our CSEPP requirements. The county is located in Northeast Alabama, approximately 60 miles east of Birmingham, Alabama, and 75 miles west of Atlanta, Georgia. The county encompasses 610 sq. miles with a population of about 116,000 ($\pm$ 70,000 in the Immediate Response Zone (IRZ) with the remaining population in the Protective Action Zone (PAZ)). The major population centers of Anniston ($\pm$ 30,000) and Oxford ($\pm$ 14,000) are located in the IRZ and are generally between Anniston Army Depot to the west and Fort McClellan to the east. There are two major highways in the county. Interstate 20 which runs east and west through the very southern end of the county and U.S. 431/S.R. 21 which runs southeast to northwest through the northern and western parts of the County.

I have been involved in Calhoun County CSEPP for the past six years and for the thirty years prior to that have had "hands on" experience with and a detailed understanding of toxic chemical warfare agents. While I believe the likelihood of a toxic chemical agent accident/incident at Anniston Army Depot is remote, I strongly believe the consequences

of such an accident or incident that impacts or effects the community would be catastrophic. From this single perspective (possible catastrophic consequences), Calhoun County has made little real progress in achieving "maximum protection for the general public". This does not mean Calhoun County has not benefited from CSEPP; in some cases we perhaps have benefited more than any other CSEPP County to date.

My programmatic assessment of Calhoun County CSEPP reveals:

Progress has been made:

- Increased staff
- A mostly functional emergency operations center (EOC)
- A partially complete outdoor alert & notification system (SIRENS)
- An initial automated emergency management information system (EMIS)
- Limited CSEPP public information and community awareness
- Limited first responder CSEPP training
- A current county emergency operations plan (EOP)

Current major deficiencies:

- No programmatic communication system
- No indoor alert & notification tone alert radio system (TARS)
- No evacuation time estimate (ETE) results
- No demographic survey results
- No collective protection system (CPS)
- No personal protective equipment (PPE)
- Lack of a complete outdoor alert & notification system (SIRENS)

- Lack of a complete automated information system
- Lack of complete planning guidance
- Lack of an efficient and responsive CSEPP public information and community awareness capability

The above deficiencies are not all inclusive, but serve to frame my "maximum protection" assessment.

My greatest concern is that past and current CSEPP management structures and practices have fallen far short of providing "maximum protection for the general public". It is my opinion that a convoluted, inflexible, ever changing, cookie cutter and bureaucratic approach to CSEPP has severely impeded progress in this County. FY 95 has been a complete disaster. In fact, we seem to be going backward rather than forward. Specific examples include:

Receipt of an initial FY 95 CSEPP budget nine months into the FY. This initial budget contained numerous errors and budget line items that seemed to have been arbitrarily and capriciously reduced or zeroed out. We received the first budget modification on 20 Jun 95 and are scheduled to receive a second modification momentarily. This FY 95 budget receipt time line gave us about 40 working days to accommodate an entire FY CSEPP budget (other than Continuing Resolution Authority (CRA) costs of salaries & benefits, office supplies, utilities and previously existing maintenance contracts).

Establishment of Integrated Program Teams (IPT's - with no "local" members) which sound like, look like and smell like a previously failed CSEPP management practice called Sub-Committees.

An apparent decision by CSEPP management (decision makers) to not directly communicate with or work with those responsible for program implementation at the local level.

An apparent decision to continue funding the Federal Emergency Management Information System (FEMIS), an automated information system for Chemdemil installations and CSEPP communities, even though the system dramatically failed a Government Acceptance Test (GAT) and was widely viewed as being unusable.

A time consuming effort (taxing already limited county personnel resources) called "Road Mapping" which was championed as the tool to define CSEPP life cycle cost. It is pointed out that projected CSEPP life cycle cost were previously submitted in FY 1992, FY 1993 and FY 1994 by this county. The rationale proponded by CSEPP management for this endeavor was that previously projected life cycle costs were not realistic. In essence, stating the people responsible for implementing CSEPP were not capable of determining the cost based on established programmatic requirements.

At this juncture I will address some assessment details:

Calhoun County has built a functional emergency operations center (EOC) with CSEPP funding.

Perceived systemic problems associated with this project were:

Disregard for established programmatic requirements - lack of initial support by CSEPP management resulted in long delays. This project took four and one half years from inception to completion even though CSEP programmatic documents specifically required an EOC outside the IRZ.

Micromanagement - the project was hampered and frustrated by attempted CSEPP micromanagement during design and construction.

Disregard for established programmatic requirements and lack of funding - some basic requirements such as a usable handicapped access ramp, a paved parking lot, curbs and gutters were not funded.

Calhoun County has procured, installed and placed in operation an initial CSEPP outdoor alert & notification system (43 sirens - 38 in Calhoun County and 5 in Talladega County) with CSEPP funding.

Perceived systemic problems associated with this project were:

Non-responsive action - the Alabama Emergency Management Agency (AEMA) was initially provided funding to purchase and install the IRZ siren system. After delaying action on the project for one year, AEMA requested Calhoun County to assume management for purchase and installation of not only the Calhoun County sirens but the Talladega County sirens as well.

Disregard for established programmatic requirements - the initial sound propagation study provided by CSEPP management mis-calculated the stipulated (and required) coverage.

Disregard for established programmatic requirements and lack of support for local needs - the number of authorized sirens (43) does not provide adequate IRZ sound coverage. Siren dollars were available to purchase additional sirens to fill in the sound coverage gaps. Accordingly, Calhoun County requested these available dollars be used to purchase and install the needed sirens in subsequent CSEPP budget and re-allocation requests, but these requests were denied by CSEPP management. Therefore, today, some folks in the IRZ cannot hear the siren tones or messages. Continued delay by CSEPP management in providing additional outdoor alert & notification system siren authorization places parts of the IRZ populations at unnecessary risk.

Lack of support for local needs, lack of funding and hostage holding - after requesting that empirical siren sound propagation studies be performed during both the FY 94 and FY 95

Anniston Area CSEPP exercises (and being denied on both occasions), CSEPP management required (in the delayed FY 95 budget) that we contract a sound propagation analysis (which was not funded) to verify the additional siren requirements.

Disregard for established programmatic requirements and lack of funding - providing funding for siren coverage at PAZ special facilities (though needed) while denying requests for required IRZ coverage (dead spots) defies logic.

Calhoun County does not have an effective multi-agency, multi-jurisdictional programmatic communication (800 MHz) system as delineated in a 1992 CSEPP funded communication study. In 1993 CSEPP management acknowledged this project was needed to accomplish CSEPP mandates and the project was partially funded in FY 93 and FY 94 with additional funding to complete the procurement process to be provided in FY 95. If the required FY 95 funding is provided by CSEPP management in a timely manner, the project will be awarded in August 1995. If funding is not provided in a timely manner, four years of dedicated effort will be lost and the entire process will have to be started again.

Perceived systemic problems associated with this project are:

Disregard for established programmatic requirements, lack of support for local needs and lack of funding - this has been a four year (1991-1995) battle with CSEPP management regarding needs, numbers and dollars. Communication system requirements are clearly

defined in CSEP programmatic documents but Calhoun County has yet to receive all funding needed to award a contract for procurement and installation of this required communication system.

Micromanagement and lack of support for local needs - CSEPP management apparently feels they know better than we at the local level what local communications needs are.

Disregard for established programmatic requirements and lack of funding - CSEPP management approved additional component funding (one additional repeater site) even though it provides coverage well outside the IRZ and PAZ; while not providing funding to meet system baseline requirements.

Hostage holding - the indoor alert & notification tone alert radio system (TARS) is being held hostage to this project because TARS must be activated with this communication system.

Calhoun County does not have an indoor alert & notification tone alert radio system (TARS) in place.

Perceived systemic problems associated with this project are:

Hostage holding - to date Calhoun County has been unable to obligate FY 91 TARS funding because a demographic survey that establishes the specific number of units and

their specific location is not available and CSEPP management insists that the demographic survey be completed first.

Non-responsive action and lack of support for local needs - the Alabama Emergency Management Agency (AEMA) received funding to conduct a CSEPP demographic survey in FY 93. To date, the demographic survey has not been initiated. We have requested this demographic survey funding be transferred to Calhoun County on two separate occasions in order to initiate this project.

Hostage holding - having an 800 MHZ communication system design is required before design, manufacture and installation of TARS devices can begin.

Calhoun County does not have a compliant CSEPP automated information system. A system which CSEPP documents state is required for planning and managing a toxic chemical agent accident or incident.

Perceived systemic problems associated with this project are:

Disregard for established programmatic requirements - there has been a continuous four year (1991-1995) battle with CSEPP management over programmatic functional automation requirements.

Disregard for established programmatic requirements - an attempt by CSEPP management to force Calhoun County to accept an automation system (renamed many times as IEMIS, SPOCC and IBS but always the same system) which did not meet programmatic requirements and which is not compatible with the Chemdemil (Depot) automation system.

Disregard for established programmatic requirements - CSEPP management has refused to acknowledge our ability to determine programmatic system requirements for hardware and software. With limited funding, we have implemented a CSEPP automated information system by using the Army Emergency Management Information System (EMIS) which provides direct connectivity and communication with Anniston Army Depot. The system is used for daily CSEPP operations and performs well (based on its current CSEPP capability).

Disregard for established programmatic requirements and lack of funding - CSEPP management has refused to provide the additional funding needed for total CSEPP automation functionality (both hardware and software capability).

Lack of support for local needs and lack of funding - our current automation system is limited because its' effectiveness is dependent on the willingness of local agencies (tasked with CSEPP response and recovery efforts) to use it daily for training, data base input, data base update, and daily operations. Our local response and recovery agencies and EOC staff do not use the current automation system on a daily basis because the time and distance required to travel to the EOC in order to perform CSEPP work and training is

prohibitive. This disconnect can be remedied by 16 workstations for these agencies at their normal place of business.

Calhoun County does not have a portable decontamination capability.

Perceived systemic problems associated with this project are:

Lack of support for local needs - in FY 93 we requested four multi-person decon units to be placed at predesignated first responder staging areas. CSEPP management felt this number was excessive.

Lack of funding - in FY 94 Calhoun County made the same request as in FY 93. In FY 94 CSEPP management arbitrarily reduced funding to the point where it has been impossible to procure a decon unit. As recently as May 1995 Calhoun County sent a decontamination unit specification out for bid. No bids were received from the available vendors due to the limited scope of the project and high cost to produce a single unit. Therefore we have no decontamination capability.

Calhoun County has not been funded for critical "maximum protection" items which are the very heart of this program. These items include a collective protection system (special facility and community protective shelters), transportation requirements and personal protective equipment (PPE).

Perceived systemic problems associated with these projects are:

Disregard for established programmatic requirements, lack of support for local needs and lack of funding - collective protection is a system designed to provide Calhoun County special populations (i.e., hospitals, nursing homes, day care centers, correctional institutions and schools) protection during a chemical agent accident / incident. These facilities have no practical way of evacuating (their populations) and must be afforded "maximum protection". These collective protection systems will also provide "maximum protection" for the general population thus easing evacuation requirements. This requirement has been forwarded (to include justification and detailed design information) for the past three budget years (FY's 93, 94, 95). To date, CSEPP management appears unwilling to discuss the requirement much less fund it. Calhoun County citizens do not currently have protection, much less "maximum protection", from toxic chemical agents; thereby exacerbating a very complicated evacuation process. This CSEPP requirement for "maximum protection" cannot continue to be ignored.

Disregard for established programmatic requirements, lack of support for local needs and lack of funding - transportation is an immediate and near term protective action requirement for school children. There are 43 public and private schools in Calhoun County. School buses in Calhoun County are required to pickup and deliver children to different schools at different times. In the event of a CSEPP driven evacuation we would be unable to move the school children due to the limited number of available buses. This requirement has been forwarded (to include justification and concept of operations) in the

last two CSEPP budgets (FY's 94, 95). To date, CSEPP management has not funded this requirement.

Disregard for established programmatic requirements, lack of support for local needs, and lack of funding - first responder personal protective equipment (masks/respirators and protective clothing) is vital to confidence, "maximum protection" and ensuring responders can perform CSEPP tasks. Currently, our first responders have no CSEPP personal protective equipment.

I believe continuation of current CSEPP management structure and practices spell disaster for this community. I also believe future problems can be minimized (if not eliminated) and program cost can be reduced by:

Re-assessing, in a public and candid way, the true/real community risk(s) associated with storage and destruction (independent of the destruction method) of site specific toxic chemical agent stockpiles. It is my opinion, based on Chemdemil programmatic documents such as the Final Environmental Impact Statement (FEIS), that community risks are overstated. An overstatement that has been carried over to the CSEPP process.

Prioritizing and allocating CSEPP funding to communities at greatest risk, where casualties would be highest based on the stockpile and/or Demil threat, in the event of a toxic chemical accident/incident.

Implementing a block grant program which provides CSEPP funding directly, but separately, to both counties and states based on their requirements to carry out the mandates of "maximum protection". In short, place the funding where "the rubber meets the road" (75% of the yearly CSEPP allocation going directly to the counties); where "maximum protection" must be achieved; and where a greater "bang for the buck" will be realized. It should be noted, counties have Federal fiduciary responsibility and accountability (OMB). If a county mis-spends CSEPP funds they will be held accountable and must pay the consequences.

Reducing the multi-layered CSEPP bureaucracy. After six plus years, it becomes more evident each year that past and current CSEPP management structure and practices have not and do not work. Rather, form a small, but knowledgeable CSEPP decision making cadre for each site. This cadre should consist of each IRZ County CSEPP decision maker (one member), each State CSEPP decision maker (one member representing the State and PAZ counties) and a Federal CSEPP decision maker (one member). This small team could and should make CSEPP decisions for each site, thereby eliminating much of the CSEPP management overhead with its' faceless protocols, distances and delays which are common to a multi-layered bureaucracy.

Using previously submitted life cycle cost information (1992, 1993, 1994) vis-a-vis spending time and effort to load the recently initiated CSEPP "Road Map base line". Our previously submitted and annually updated life cycle information provides realistic CSEPP projections (at least for this County) that can and should then be placed in Army POM process.

In summary, Local Elected Officials are responsible for the Congressionally mandated "maximum protection for the general public". If programmatic resources needed to plan for, respond to and recover from a chemical agent accident/incident are not in the hands of folks at the local level who are responsible for "maximum protection", CSEPP will fail and lives could be lost. Ultimately the success of CSEPP rests in the ability of the people tasked to execute it.

Very Respectfully Submitted

Mr. HUNTER. Thank you, Mr. Bennett.

We will now turn to our final panel member on this panel, Ms. Kari Sagers, who is a director of Tooele County, UT, emergency management. You are the folks that are going to be getting things done very shortly. Thank you for being with us.

**STATEMENT OF KARI SAGERS, DIRECTOR, TOOEE COUNTY,
UT, EMERGENCY MANAGEMENT**

Ms. SAGERS. That is right.

Thank you. On behalf of the elected and appointed officials of Tooele County, I want to give our feelings and our assessment of the current status of the chemical stockpile disposal program as it affects our county here today.

We are in complete support of the committee's objectives to consider and evaluate the ways to reduce the overall costs within the program while minimizing the total risk and ensuring maximum protection of the citizens, the workers, the property, and the environment.

As has already been stated, Tooele County houses 42.3 percent of the Nation's chemical stockpile and is the site of the first completed chemical agent disposal facility in the continental United States. To the best of our knowledge, no other site has broken ground for a similar facility. The Tooele Chemical Agent Disposal Facility is within months of beginning hot operations, and Tooele County is not prepared to respond to an off-post chemical event should that unthinkable happen.

Despite our ongoing requests for needed funds and resources, we haven't received adequate assistance. To date, approximately \$281 million have been allocated for the Chemical Stockpile Emergency Preparedness Program, and Tooele County has received approximately \$6.5 million, or 2.25 percent of the program's total funds.

Although Tooele County's progress toward emergency preparedness seems to have taken place at a snail's pace in relationship to the overall demilitarization schedule, we have most definitely made progress. We do have a functional emergency operations center. We have an outdoor siren system and the beginnings, or the foundation at least, of an accompanying indoor tone alert radio system. We have improved communications and an existing 24-hour emergency medical capability at our Tooele Valley Regional Medical Center. However, our progress has been impeded along the way and Tooele County officials are becoming increasingly skeptical of the national CSEPP management.

Until our public safety needs are met, we cannot in good conscience allow hot operational burns of the Tooele Chemical Agent Disposal Facility. Tooele County's position is to let the facility sit in the desert gathering dust until these matters of concern are resolved.

Tooele County's specific issues are: After years of fruitless discussions, a decision has yet to be made on personal protective equipment for first responders. Numerous requests for funds have consistently been denied. Without the requested manpower and resources, we cannot meet the Federal mandate to provide maximum protection for our citizens in a chemical event. We must have funding to ensure the continued 24-hour emergency medical response

capability at our hospital. We need adequate funds for completion of our communication system, which is the nucleus of our effective emergency response.

Mr. HUNTER. Let me ask you, just a second, you mentioned the personal protective equipment for responders that the Federal Government has not yet come to closure on and what that is going to be for the counties.

Ms. SAGERS. That is correct.

Mr. HUNTER. Mr. Bennett, was that one of your issues?

Mr. BENNETT. That is correct.

Mr. HUNTER. Who do you deal with? OSHA?

Ms. SAGERS. OSHA I believe are the ones that actually are holding it up at this point. We have been told—

Mr. HUNTER. They are probably too busy finding hardware stores having a can of paint on the lower shelf and don't want to deal with things like nerve gas.

General MATTHEWS. It's gone to the OSHA lawyers.

Mr. HUNTER. Oh, no. You know why they bury OSHA lawyers at 80 feet? Deep down they are really good people.

I say that as a lawyer, of course. I would never profane that wonderful profession. Let's see if we can't—let me ask staff, do we have any OSHA witnesses here?

Mr. REED. No, sir, but we will follow up.

Mr. HUNTER. OK. We will try to follow up with you.

You know, of all the things that can be done in this program, there are a lot of things we would like to have that we can't get, but you would think that would be just a basic thing we could get for our counties. So we will try to work on that.

Please proceed, Ms. Sagers.

Ms. SAGERS. Thank you.

Maybe I will take just a moment, though, in relation to those comments that you just made. We feel in Tooele County really that, on that particular issue, we have actually slid backwards on the protection for our first responders.

Tooele County, because they have had the storage site there for many years, for at least over 20 years that I know of, there has been an existing written agreement between our Tooele County Sheriff's Office and the Tooele Army Depot, where the depot did at least supply gas masks for our deputies, who might need to do some traffic control or something, and this has been for a good long amount of time. Approximately, I guess it has been about 9 months ago, that program was totally stopped. So today, our responders absolutely have nothing at all.

Mr. HUNTER. OK. One other idea on that. General Orton, you might want to help me on this. But we are dropping down our Army in strength from 18 active divisions to 12. That would seem to reflect what will be a surplus of a lot of equipment; included should be gas equipment.

Ms. SAGERS. I believe the problem does then fall back into the OSHA net, because it was actually—

Mr. HUNTER. We may need to bring the Army into this mix, too, and try to drive a meeting here in Washington between the Army and OSHA and you folks and come up with some of this equipment

before we sell it off to some Third World country for a penny a pound or something.

Can we—General, could you help us on this, try to get a meeting together? OK.

Please proceed.

Ms. SAGERS. Thank you. OK.

We feel that the following suggestions would benefit the CSEPP by putting needed dollars at the point of impact and reduce unwarranted waste. Federal decisionmakers should be more sensitive to the needs of the local entities who are forced to deal with the public safety and emergency response and streamline the budget process to meet real needs.

Constant changes in the CSEPP management should be minimized.

A methodology has to be found and implemented to ensure continuity.

Budget funding and distribution channels need to be streamlined to assure that the allocated funds reach the immediate response zone and protective action zone communities without a significant portion of the funds being siphoned off by support agencies.

The CSEPP funding process needs to be somewhat removed from the political arena and be based on real needs and real time frames.

A program of the magnitude and importance of the CSEPP cannot effectively be micromanaged from Washington, DC. On-site program directors must be given greater latitude to make personnel and operational decisions.

Policymakers at every level must make decisions in a timely manner. Everyone involved in the CSEPP must be held accountable for their decisions.

Local governments are required to meet an ever growing list of federally imposed mandates without the resources to implement them. These mandates must not only be funded but done so in a timely manner.

Local and State jurisdictions need to have reasonable access to technical support at all levels.

Every agency involved in the CSEPP needs to focus on performance and cost-benefit ratios and less on the line item expenditures.

Finally, let me just state that we believe that the CSEPP should not find itself in the position of stepping over dollars to pick up pennies. Concentrated efforts of the CSEPP should be focused on the point of impact at the local level.

I hadn't intended to mention this, but if I could take just a moment and try to illustrate to you the frustration that we are feeling down on the local level with the bureaucracy, and we have been involved in the program and very supportive of the program in Tooele for a long time. You know, we hear that costs need to be cut, and we agree. You know, the costs are spiraling out of control, they need to be cut, but not down at the local level where these funds are really needed.

Let me just share this example. We put our fiscal year 1995 budget requests about 13—almost 14 months ago. Our fiscal year 1995 began last October 1. About 2 weeks ago, I received unofficial

paperwork on what our 1995 allocations were going to be, and let me just show you how ridiculous this gets.

We put in a siren system to meet all of the criteria of the program and to ensure public safety, and we are very supportive of that. We are glad to have that in place. Two of the sirens—we have 37 sirens—two of the sirens are for a community called Ophir. It is a very small community just outside of the boundaries of the south area.

Ophir is located up inside a beautiful little canyon, and we don't—we are not concerned so much that nerve agent is going to get up to those elevations, but we do want to be able to have an ability to tell those people, don't come down if something happened and they were in danger.

We have a siren at the mouth of the canyon before you go up to the community. We have a siren that is directly in the community. Because of the layout of the land in the canyon, we can't get a reliable signal to that siren to activate it. We don't get it 100 percent of the time. So we decided that that certainly wasn't a good situation, and we had to return a hard line. It is just basically a U.S. West telephone line between the siren at the mouth of the canyon and a siren in the community. For that direct line, when we activate the one at the mouth, it automatically activates the other one.

For that direct line we have to pay about \$2,400 a year, for that prioritized direct line. It doesn't go into the switching system or anything, but just to have that in place. It also costs about \$600 a year to have electricity to that one siren site in Ophir. All the rest of the sirens are solar powered with battery backup.

We put in our funding request, again, 13 months ago. A couple of weeks ago I got our budget back, and we were denied \$600 a year for the electrical power and the \$2,400 a year to maintain that special circuit. That is the frustration that we are having in Tooele County.

Thank you for your time and consideration.

To: **COMMITTEE ON NATIONAL SECURITY**
U.S. House of Representatives
Washington, DC 20515-6035
One Hundred Fourth Congress
Floyd D. Spence, South Carolina, Chairman

Purpose: **PROCUREMENT SUBCOMMITTEE HEARING**
Thursday, July 13, 1995, beginning 9:30 a.m.
2118 Rayburn House Office Building

Subject: Status of Chemical Stockpile Disposal Program (CSDP) and
Chemical Stockpile Emergency Preparedness Program (CSEPP)

Statement submitted by: **Kari Sagers, Emergency Management Director**
Tooele County
47 South Main Street
Tooele, Utah 84074

Statement date: July 10, 1995

INTRODUCTION

The first disposal facility for chemical munitions in the continental US, the Tooele Chemical Demilitarization Facility (TOCDF), has been constructed at Tooele Army Depot (TEAD) South Area in Tooele County. Construction of the disposal facility began in October, 1989, and was completed in the fall of 1993. The liquid incinerator surrogate trial burn was recently completed and the facility is currently scheduled to begin "hot" operations with chemical agent in mid-November, 1995.

Tooele Army Depot (TEAD) stores 42.3% of the nation's chemical stockpile. The chemical agents currently being stored and proposed to be destroyed are of nerve types GA, GB, and VX, and blister types H, HD, HT and L. These chemicals are currently stored in three basic types of configurations: 1) Projectiles, cartridges, mines and rockets containing propellant and/or explosive components; 2) projectiles and aircraft-delivered munitions that do not contain explosive components; and 3) large quantities of bulk agent stored in steel one-ton containers.

Tooele Army Depot is the only stockpile site storing all agent types and munitions configurations. (See Attachment 1 for the overall distribution of the Army's stockpile of lethal chemical agents and munitions throughout the continental United States.)

In compliance with the National Environmental Policy Act (NEPA) (*Pub. L. 91-190*), two environmental impact studies were completed regarding the Chemical Stockpile Disposal Program (CSDP). Programmatic-level (addressing all sites) and site-level (separate for each location) environmental impact statements were completed. Part of this text references both the *CSDP Final Programmatic Environmental Impact Statement (FPEIS)*, dated January, 1988 and the *Tooele Army Depot Utah Final Environmental Impact Statement (UFEIS)*, dated July, 1989.

The *FPEIS* discusses five alternatives relative to the destruction of the chemical stockpile: 1) Continued storage of the stocks at their present locations (the no action alternative); 2) on-site disposal of the stocks at their present storage locations; 3) relocation of the stocks at regional disposal centers at Anniston Army Depot (ANAD) and Tooele Army Depot (TEAD) for destruction; 4) relocation of the stocks to a national disposal center at TEAD for destruction; and 5) relocation of the inventories at some sites to alternate sites, with the remainder destroyed at their present storage locations (this alternative includes air movement of the Aberdeen Proving Grounds (APG) and Lexington-Bluegrass Army Depot (LBAD) inventories to TEAD for destruction).

The *Chemical Stockpile Disposal Program (CSDP) Final Programmatic Environmental Impact Statement (FPEIS)* dated January, 1988, states that "TEAD is the national alternative for the disposal of all chemical munitions within the continental US." If the national alternative were to be implemented, "TEAD [would be] the destination site from all other seven sites... and the TEAD risk [would include] all the risks associated with on-site disposal of the TEAD stockpile as well as that from other sites." Furthermore, "...risk will be increased in direct proportion to the number of the munitions that need to be processed." [FPEIS Vol. 1, Sections 1-8, p. 4, 112] At the current level of chemical munitions stored and slated to be destroyed at TEAD, The FPEIS states that Utah has the potential for 20,000 fatalities under the worst case scenario. [FPEIS Vol. 1, 4.3.7.2]

The subsequent *Tooele Army Depot Utah Final Environmental Impact Statement (UFEIS)*, dated July, 1989 states: "It should be noted that TEAD is unique in that all ... [CSDP] programmatic alternatives involve the use of TEAD as a disposal site. That is, the alternatives evaluated for TEAD involved either the on-site destruction of only the TEAD stockpile or the destruction at TEAD of additional stockpiles from two or more other installations. None of the programmatic alternatives considered off-site movement of the TEAD stockpile."

Tooele County officials are aware that the final decision made by the Congress in order to minimize total risk, was to build eight disposal facilities to destroy the chemical munitions at each stockpile site. We are also familiar with the fact that current federal legislation bans the off-post transport of any portion of the chemical stockpile. However, taking into consideration cost overruns at the Johnston Atoll Chemical Agent Disposal System (JACADS) and the Tooele Chemical Disposal Facility (TOCDF), and judging from the current status and overall cost of the chemical demilitarization program, it is the consensus of Tooele County elected officials that a potential still exists for TEAD to become the national alternative, or at least a regional disposal site, especially if alternative technologies are found to reduce various chemical agents to the level of transportable hazardous waste.

PROGRAM STATUS

Despite the fact that Tooele County is the first line of defense in an off-post chemical agent release, we are not prepared to respond to such an event. Until we are fully prepared to effectively deal with such a crisis, Tooele County will pursue every avenue available to stop planned operational burns. We are pleased to note that the Congress has recognized the need to deal with preparedness

issues. However, if we are forced to follow this course of action because of bottlenecks in the CSEPP, millions of dollars may be wasted because thousands of needed dollars were not allocated. Under the existing funding process, it seems that federal bureaucrats are handing out pennies as if they were manhole covers, while ignoring real cost containment opportunities. How much will it cost each day for the Tooele Chemical Demilitarization Facility to be idle while we are waiting for critically needed funds to meet our emergency management responsibilities? The CSEPP needs to be treated as a business where investments are quantifiable and returns measured upon results. We have been forced to adopt this position because of the amount of red tape and needless bureaucratically-imposed delays we have endured and continue to experience. Meanwhile, chemical munitions continue to be stored at Tooele Army Depot and the Tooele Chemical Demilitarization Facility continues to move toward scheduled "hot operations" in mid-November, 1995.

You might say the bottom line is that by the fall of 1995, the Army will have a "billion dollar facility" with trained people, ready to operate but will be unable to begin operations because Tooele County will not be prepared to provide the protection required. The cost (for both the Army and the American Taxpayer) to have this kind of investment sitting idle while contractors stand by, makes us wonder what the Army considers "cost effective".

It is imperative that federal decision-makers become more sensitive to the needs of the local entities who are forced to deal with public safety and emergency response. The budget allocation and decision-making process should be streamlined to meet these needs. As local elected and appointed officials, we believe our concerns are not being heard or acted upon. It seems more often than not that people in blue suits from over 2,000 miles away think they know what is best for local entities within the Immediate Response Zone (IRZ) and the Protective Action Zones (PAZ). This has been an ongoing issue since the beginning of the program. Local elected and appointed officials who have held public office or who have been involved in the CSEPP since its inception can attest to the fact that we are rehashing the same issues that were identified six to seven years ago, with little or no progress made in many of these areas. An illustration of this point is Attachment 2, a copy of a letter written by the Tooele County Commission to Utah's Congressional delegation out of frustration because of the lack of timely response to our budget requests, which included funds needed for communications upgrades, personal protective equipment, personnel, training, etc. You may note with irony that the date of the letter is April 27, 1990. We could almost print the same letter for signature today, over five years later, and the issues addressed then still need resolution today! Another interesting note is that of the persons referenced or receiving a copy of that letter, Lorayne Frank, the

Director of the State of Utah Comprehensive Emergency Management, and i are the only people still in the CSEPP.

It is critical to the well-being of the CSEPP that the constant changes in management at the national level be minimized. Local officials are of the opinion that the program lacks stability and direction. It seems as though the proverbial target of identifying and providing the resources needed to meet the mandated objectives outlined by the Congress keeps moving. Constant changes at the federal level within the CSEPP, including the program structure, program methodology, and policy-level personnel, reinforce these concerns. If something is not done to correct this problem, we will continue to rehash issues that should have achieved resolution months and years ago. Those who do not learn from their mistakes are bound to repeat them. We feel saddled with the burden of the CSEPP changing key players so often. It seems we are being forced to re-invent the proverbial wheel every other day. After numerous letters, meetings, conferences and conversations with various federal officials, we still have grave concerns that we lack needed program support.

Budget, funding, and distribution channels need to be streamlined to assure that allocated funds reach IRZ and PAZ communities without a significant portion of the funds being siphoned off by support agencies. These channels need to be better defined, thereby allowing more direct input by local managers into the process. This would also reduce unwarranted and arbitrary decisions from being imposed by people who have no idea or real life perception of local needs. (An example illustrating this point is that we recently received budget approval sheets inferring that our FY95 detailed budget request totaling \$4,459,086 was arbitrarily reduced to a funded amount of \$590,070. It appears that our local needs were basically ignored and a major portion of our budget requests denied without our direct input or the courtesy of open dialogue. All this, despite the fact that we are the only local jurisdiction months away from being forced to deal with hot operations at the Tooele Chemical Demilitarization Facility.)

By streamlining the budget and allocation process, standards can be established that meet the needs of the CSEPP and local management, thereby reducing overhead. If these channels were streamlined and communications strengthened, local managers would know what funding is available and the time frame in which it will be received. This would allow for more prudent financial management at all levels of the budget process, and in turn, create savings. One way the aforementioned objectives could be accomplished is with block grants to local jurisdictions. Block grants would give CSEPP funds a "bigger bang" for each dollar spent by avoiding massive and ineffective overhead as funds trickle down to the point of impact.

We at the local level also feel that we are being expected to carry a disproportionate share of the burden for this program on the backs of our local taxpayers, even though the program is of national importance and concern. There seems to be an inordinate amount of time spent dealing with the ongoing battle for every dollar requested from the CSEPP from the time of submission to the time of approval (or non-approval). It takes months and years for these dollars to reach the point of impact. The fact of the matter is that out of over \$12.9 billion spent on the Chemical Stockpile Demilitarization Program, (\$280.9 million of which has been spent nationally in conjunction with the CSEPP), Tooele County has received \$6,334,301 over a period of almost seven years. This, despite the fact that we have 42.3% of the nation's chemical stockpile and a disposal facility already executing surrogate burns and other operational testing.

Leadership is of grave importance in the CSEPP. Tooele County is providing needed leadership at the local level and blazing new trails with little programmatic support. "Some person" or "some agency" at the national level needs to step into the existing leadership void. Local level management needs consistency in the areas of technical support, and the ability to cut through the red tape and solve real issues in real time. It is our local citizens who live 24-hours-a-day with the real threat of exposure to an off-post chemical release. We need leadership at the national level that recognizes and shares our concerns. **The CSEPP is not an 8:00 a.m. - 5:00 p.m. issue that can be dealt with some time in the future -- the needs are now!**

Consistency throughout the program has to be achieved. At the present time, computer automation systems are inadequate and reliable interfaces between off-post (civilian) and on-post (military) systems are not yet in place. Tooele County recently requested funding for computer software and hardware to implement the newly developed CSEPP automation system, FEMIS (Federal Emergency Management Information System), in our Emergency Operations Center and to bridge it with Tooele County's existing computer system. Fundamental funding portions needed to achieve this bridge were denied. However, preliminary FY95 budget allocation documents recently received indicate that some faceless bureaucrat at the national level was generous enough to allocate funds for technical support for an obsolete interim system that has no value to Tooele County or to the CSEPP. (Despite the fact that we are now in the tenth month of the current fiscal year, we have yet to receive FY95 CSEPP procurement funding. Unconscionably, it has been over thirteen months since we submitted our FY95 detailed budget requests.)

The CSEPP funding process needs to be somewhat removed from the political arena and be based upon real needs and real time-frames. Everyone

in the CSEPP agrees that each site is unique and may have individual needs. However, it is important that certain standards be set. For instance, the integration of on-post and off-post plans should be required throughout the program and site-specific needs should be evaluated to curtail unreasonable funding demands. Also, a plan needs to be devised and implemented to allocate funds for remediation after exercise-related findings are identified.

A program of the magnitude and importance of the CSEPP cannot effectively be micro-managed from Washington, DC. Accountability is critical, but attempted micro-management is ineffective and costly. This has proven to be the case in other programs where, for each federal \$1.00 allocated to meet a specific need, \$.10 is received at the point of impact. Federal management must be streamlined and managers held accountable for their performance. If a business were to run without performance goals and ongoing evaluation, it would be bankrupt in short order. We owe it to our constituents that they receive their money's worth for every dollar spent in the CSEPP.

In order for the CSEPP to maximize efficiency, common-sense business principles need to be implemented and standards established at the federal level that create a system of accountability for poor decisions made. Conversely, managers who excel need to be recognized and rewarded for their efforts.

There have been and continue to be ongoing discussions and debate regarding the cost-effectiveness of full-time employees versus contract personnel at the local level. It is our belief that this issue is not either/or, but rather that it boils down to what is effective from a management, mitigation, preparedness, response, and cost standpoint. It has been our experience that full-time employees can be cross-trained to assure maximum man-hour utilization and to provide needed redundancy within the public safety arena. Additionally, our full-time employees can generally be physically in the Emergency Operations Center within a few minutes of notification of a crisis. In responding to a chemical event, seconds and minutes are the critical time elements, not hours and days.

The CSEPP budget process needs to be more receptive to local needs and allow on-site managers greater latitude to make operational decisions. Appropriate justification for such needs is necessary, but once this is done and reviewed, second-guessing and lengthy, unwarranted and time-consuming reviews need to be eliminated. Accountability is a great tool if used properly, but when it is misused, the tool becomes a liability.

Policy-makers at every level, but particularly at the federal level, must make decisions in a timely manner. Our County is within a couple months of hot

operations at the Tooele Chemical Demilitarization Facility, and if needed decisions are not forthcoming for weeks or months, we are placing our civilian populations in harm's way without any justification. Local and state managers are paid to make decisions in a timely manner and are held directly accountable for our decisions, and this same standard should apply to federal managers. The decision-making process at the federal level needs to be streamlined with fewer bodies creating redundant and unnecessary reviews. If at the federal level "road maps" are being imposed to reach mandated objectives, local jurisdictions must have more time and flexibility in the implementation process. As conditions change, we cannot put a square peg into a round hole without the tools to make adjustments.

The process of sending information through existing channels creates unwarranted delays and increases operational overhead. First-line decision-makers need to be able to communicate with federal program decision-makers with less interference from uninformed bureaucrats. Local jurisdictions need to be given adequate funding and human resources to meet increasing federal mandates. Federal decision-makers need to meet with local managers to understand and review site-specific needs and must gain realistic expectations of local workloads.

Every organization must have realistic goals and objectives which include the budget process. Local jurisdictions have been told to provide concrete budget projections for the next ten years. We understand that once these budget projections are reviewed and finalized, they are to be irrevocable with no more than a total of 5% modification for this ten-year period. Every cost effective business has accepted the fact that it is ludicrous to impose standards so rigid as to cripple the effectiveness of the organization. Generally accepted accounting principles accept the fact that budgets are tools to be used to monitor expenditures and receipts to assure compliance with stated objectives. They also accept the fact that as a tool, budgets must have the flexibility to accommodate unforeseen needs and circumstances. If local jurisdictions are forced to comply with this proposed standard, our effectiveness to meet the CSEPP mandated needs will be crippled. This stance must be modified to reflect real world conditions.

Tooele County has been funding CSEPP operations out of the County's general fund, pending receipt of CSEPP reimbursement monies. Opportunity to better manage County cash flows and investments are impaired while approved County projects are held in abeyance because of cash flow problems created by the existing federal appropriation process. It is an ongoing guessing game as to where and if needed funds will come, when they will actually be disbursed, and if local jurisdictions will receive them in a timely manner. **The current budget allocation process is like trying to force water through a leaky pressurized hose. Everything along the way to the objective is watered while the objective**

receives but a small portion of the intended benefit, and much less than planned.

The CSEPP needs to formulate a realistic business plan outlining the budget process wherein critical items such as allocation procedures, funding requests, and fund distribution are delineated and outline how the review process is to work.

We have requested and been denied funds from the inception of the CSEPP to perform environmental baseline studies to establish criteria for a database. Without such a fundamental foundation from which to measure, it will be impossible to assess impacts and to provide adequate mitigation and recovery plans. It is imperative that a process be instituted to realize this need. We must have clear and concise information to create a realistic baseline database. Again, policy-makers must begin to address similar issues in a timely manner. Local governments are required to meet an ever-growing list of imposed mandates without the resources to implement them. Federally imposed mandates must not only be funded, but done so in a timely manner. Everyone involved in CSEPP must be held accountable for their decisions as well as the imposed rules and regulations they impose upon others.

There appears to be a trend directed at local levels where funding is consistently being reduced. Funding requests are denied or cut without the benefit of explanations or justification. Allocations are being made in a seemingly arbitrary manner. Federal CSEPP managers need to establish better communication with state and local jurisdictions. The CSEPP needs to develop an attitude that we are all in this together and eliminate the pervasive attitude of it is 'us' against 'them'. Definitions of reasonable 'maximum protection' should recognize local expertise and allow open dialogue with all the parties involved in the decision-making process rather than being told by the federal government, 'we know what is best for you.' This attitude brings to mind a popular bumper sticker which states, 'Get In, Sit Down, Hang On, and Shut Up'.

Everyone involved in CSEPP has the same objective. We all want to meet Congressional mandates in the fastest and most cost effective manner possible. Each agency needs to focus on pulling together rather than trying to move in seemingly different directions. Public safety should be of paramount concern. The best way to achieve this is by eliminating unnecessary links in the chain of command and through more direct communication. Local jurisdictions need to have reasonable access to technical support at all levels.

Every agency involved in CSEPP, including the Army, needs to focus on performance and cost benefit ratios and less on line item expenditures.

Costs must be monitored and expenses justified. However, it will do no good to build a viable machine and not have the fuel to operate it because the focus was on line item expenditures rather than the master plan and completed product. It will serve no purpose if we have arbitrarily maintained costs without real world justification and are unable to accomplish the stated mission of the CSEPP. **The CSEPP should not be allowed to find itself in a position of stepping over dollars to pick up pennies.**

TOOELE COUNTY ISSUES

Our major concern at this point in time is that we have not received the funding necessary to provide the level of protection for our citizens that has been mandated by Congress and the Army because of unwarranted delays. The following represent several of Tooele County's readiness and response issues:

A decision has yet to be made on personal protective equipment (PPE) for first responders after years of fruitless discussions. Despite the ongoing need for this equipment, decision-makers within the Army, FEMA, Federal OSHA, Utah OSHA, CDC, and other agencies have not been able to agree on appropriate equipment. This issue has been under discussion since 1989, and there is still no official resolution to this matter. This creates a dilemma at the local level which could very well end in catastrophic consequences for our constituents.

Numerous requests for funding have consistently been denied, and therefore, with hot operations at the TOCDF a few months away, we still have not been able to put in place needed personnel, equipment, and training to perform key response operations for an off-post chemical event. We prepared and presented our proposed concept of operations for a Tooele County CSEPP Response Corps, and petitioned for other related resources, but to date, we have received no response from national level decision-makers. Without the personnel and the appropriate personal protective equipment, it is impossible to provide adequate first response to an off-post chemical event. This could create such problems as not staffing traffic control/access points to preclude individuals from entering a risk area or to advise and assist people leaving the affected areas. It would also be impossible to provide necessary decontamination operations, or to assist with medical emergencies which could include such things as automobile accidents, evacuation of elderly or handicapped persons, stress-related incidents, search and rescue, and other related public safety functions. **Without the requested resources we can not meet the federal mandate to provide "maximum protection" for our citizens in a chemical event.**

Funding to ensure a 24-hour emergency medical response capability. It is imperative that Tooele County be able to provide a 24-hour emergency medical response capability. In the past, the CSEPP has provided funding specifically allocated to Tooele Valley Regional Medical Center for this purpose. In order to ensure that this capability continues, Tooele County needs a commitment from the CSEPP that these funds will be allocated for the duration of the program. Without these funds, the citizens of Tooele County will be exposed to undue risk and the potential for catastrophic loss of lives. Because of the CSEPP and lack of response capabilities due to funding, we have evaluated and conducted contingency planning meetings with other medical providers outside of Tooele County. However, because of the time element involved to transport victims to other medical facilities and additional associated risks, these are often not viable alternatives. This is particularly true if you look at the conditions that would surround evacuation of population centers in Tooele County, including traffic problems, related accidents, etc. A critical component of our CSEPP mitigation, readiness and response capability is our ability to effectively interface with the Army, FEMA, the State of Utah and other agencies in a medical emergency. We are convinced that the Tooele Valley Regional Medical Center is the only realistic trauma center that would be able to effectively treat victims in a timely manner.

Completion of our alert and notification/communications system upgrade.

Our impaired ability to communicate with various response agencies during an emergency poses a high risk to everyone involved in responding to a chemical event and our efforts to save lives and protect the environment. We have been requesting funding for these items since 1989. Even though the stated objectives of the CSEPP are to minimize total risk and ensure maximum protection for the public, response personnel, and the environment, we still have not received adequate support to meet our communication needs. As of this date and after numerous requests and ongoing discussions, we still have not received the needed funding to complete the critical components of our communications system, which in turn jeopardizes our readiness capability.

Tooele County again outlined in our FY95 budget proposal the critical need for completing our communication system upgrade. Completion of this project was contingent upon procurement and installation of certain fundamental components such as: 1) Specific microwave links that would ensure coverage and redundant paths for communications in the IRZ and PAZ, including a link to connect Dugway Proving Grounds into the Tooele County communications system; 2) Generators for backup power to the communication sites and funds for ongoing maintenance costs; 3) Funds for first responder radio upgrades and replacements, and at least minimal ongoing maintenance costs; 4) funds for an AM/FM transmitter to achieve EBS coverage for the IRZ and PAZ; and 5) Funds to perform a sound propagation

study for our emergency siren system. [The requested items are needed to comply with CSEPP standards as outlined in *Appendix C - Communications Support Network: System Design Criteria and Evaluation Guide* and *Appendix F - Public Alert and Notification Systems: System Design Criteria and Evaluation Guide*.]

To date, the funds have not been received, which has placed the County in a position of not being prepared for response to an off-post chemical event. **Our communications component which is the nucleus of our effective emergency response has yet to be adequately funded.**

Tooele County Commissioner Gary Griffith has found public support in his opinion that it is ludicrous for hundreds of millions of dollars to have been spent in the last ten years by the federal government and the Army on facilities in Tooele County. It is ludicrous that billions of dollars have been spent at the national level for chemical incineration studies, programs, and demilitarization facilities. It is ludicrous that at the same time, local officials who are ultimately responsible for ensuring public safety, are being "nit-picked" by faceless Washington DC bureaucrats from thousands of miles away, who know very little about the CSEPP and its impact on local issues.

This type of mismanagement strikes out at the heart of national and Tooele County CSEP Programs. It strikes out at stated objectives to provide maximum protection to anyone, especially those living within the Immediate Response Zones and Protective Action Zones of Tooele County.

These actions, in an era of mistrust and suspicion, compound the concerns at the local level that CSEPP agendas have either changed or local concerns for public safety have been relegated to the back burner.

Tooele County Commissioner Gary Griffith says, "As a successful businessman, if I were to operate my company in such a manner, I would be broke."

"Furthermore, if I had managers acting in such an irresponsible manner, threatening the success of my business, they would be terminated immediately for cause. It is impossible to run a business when managers who are responsible for implementing stated goals and decisions thwart the objectives of policy-makers. It seems that this problem has entrenched itself within the CSEPP. The bottom line is that the product is not being delivered to the end user," Commissioner Griffith says. "That's a hell-of-a-way to operate an organization or any type of business."

Tooele County officials are increasingly skeptical of national CSEPP management. Until Tooele County has adequate assurance that its needs are met and that local citizens are assured of adequate safety, Tooele County officials cannot in good conscience allow hot operational burns at the Tooele Chemical Demilitarization Facility. Tooele County's position is to let TOCDF sit out in the desert unused to rust.

When you combine these CSEPP issues with the closure of the Tooele Army Depot's North Area and the loss of thousands of jobs which were not related to the chemical stockpile storage and demilitarization programs, many local people feel that we received the "shaft" and the federal government got the gold! Not only do we have 42% of the nation's chemical stockpile (garbage), valuable resources were lost through the Base Realignment and Closure process, such as trained Army medical and hazardous materials response personnel, etc. In addition, we have lost access to valuable Army/federal equipment and related resources that could have been accessed and utilized in an emergency.

To further compound this loss, efforts to privatize portions of Tooele Army Depot North Area are being delayed by the federal government and its agencies. **Promises of cooperation seem to be disappearing into the dark waters of the Potomac.** Tooele County is beginning to feel as if it has been left twisting in the wind at the end of a short rope, without recourse.

EXECUTIVE SUMMARY

- ▶ **Tooele Army Depot (TEAD) stores 42.3% of the nation's chemical stockpile. Tooele Army Depot is the only stockpile site storing all agent types and munitions configurations.**
- ▶ **TEAD is the national alternative for the disposal of all chemical munitions within the continental US and if that alternative were implemented, the TEAD risk would include all the risks associated with on-site disposal of the TEAD stockpile as well as that from other sites.**
- ▶ **Risk is increased in direct proportion to the number of the munitions that need to be processed.**
- ▶ **Despite the fact that Tooele County is the first line of defense in an off-post chemical agent release, we are not prepared to respond to such an event. It is imperative that federal decision-makers become more sensitive to the needs of the local entities who are forced to deal with**

public safety and emergency response, and streamline the budget allocation and decision-making process to meet these needs.

- ▶ It is critical to the well-being of the CSEPP that the constant changes in management at the national level be minimized. A methodology has to be found and implemented to ensure continuity of management.
- ▶ Budget, funding, and distribution channels need to be streamlined to assure that allocated funds reach IRZ and PAZ communities without a significant portion of the funds being siphoned off by support agencies.
- ▶ Consistency throughout the program has to be achieved.
- ▶ The CSEPP funding process needs to be somewhat removed from the political arena and be based upon real needs and real time-frames.
- ▶ A program of the magnitude and importance of the CSEPP cannot effectively be micro-managed from Washington, DC.
- ▶ The CSEPP budget process needs to be more receptive to local needs and allow on-site managers greater latitude to make personnel decisions.
- ▶ Policy-makers at every level, but particularly at the federal level, must make decisions in a timely manner.
- ▶ Every organization must have realistic goals and objectives which include the budget process.
- ▶ The CSEPP needs to formulate a realistic business plan outlining the budget process.
- ▶ Local governments are required to meet an ever-growing list of imposed mandates without the resources to implement them. Federally imposed mandates must not only be funded, but done so in a timely manner. Everyone involved in CSEPP must be held accountable for their decisions as well as the imposed rules and regulations they impose upon others.
- ▶ Local and state jurisdictions need to have reasonable access to technical support at all levels.

- Every agency involved in CSEPP, including the Army, needs to focus on performance and cost benefit ratios and less on line item expenditures.
- The CSEPP should not be allowed to find itself in a position of stepping over dollars to pick up pennies.

TOOELE COUNTY ISSUES

- A decision has yet to be made on personal protective equipment (PPE) for first responders after years of fruitless discussions.
- Numerous requests for funding have consistently been denied. Without the requested manpower and resources we can not meet the federal mandate to provide "maximum protection" for our citizens in a chemical event.
- Funding to ensure a 24-hour emergency medical response capability.
- Completion of our alert and notification/communications system upgrade. Our communications component which is the nucleus of our effective emergency response has to be adequately funded.

CONCLUSION

On behalf of the elected and appointed officials of Tooele County, I wish to thank the Committee for allowing the submission of this written statement regarding our assessment of the current status of the chemical munitions stockpile demilitarization program, as it affects Tooele County. We are in complete support of the Committee's objectives to consider and evaluate ways to reduce overall costs within the program, while minimizing total risk and ensuring maximum protection of the environment. In this statement, I have attempted to address those issues from Tooele County's perspective that impact current and future chemical demilitarization operations relative to the CSEPP at our level of government. However, these statements and conclusion should not be construed as comprehensive. They are meant to highlight those areas of immediate concern that require immediate resolution.

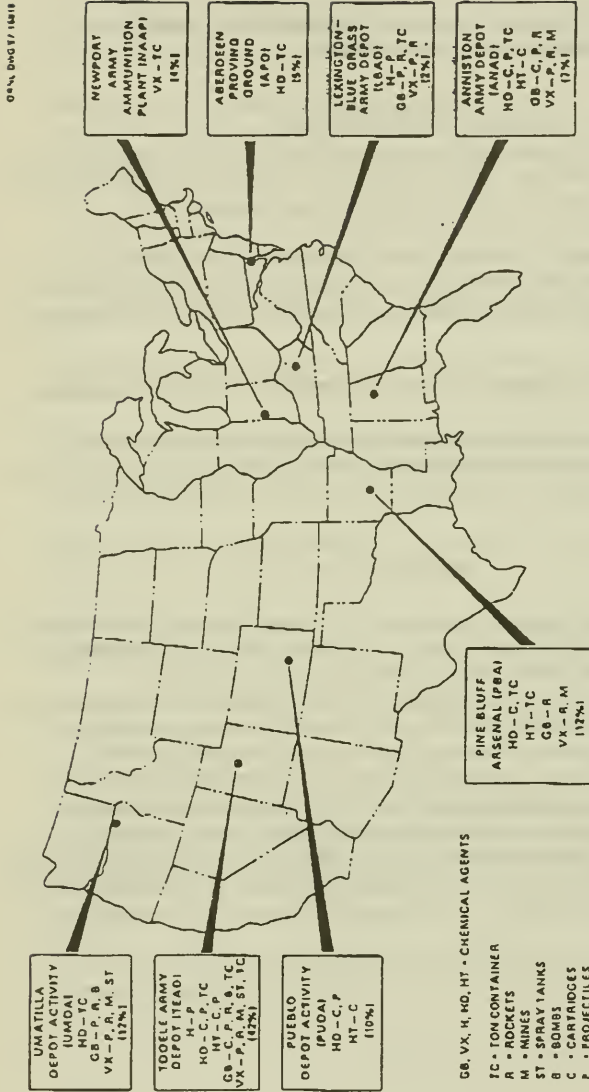


Fig. 1. Distribution of the Army's stockpile of lethal chemical agents and munitions throughout the continental United States. Note that agents CA (Tabun) and L (Lewisite) are stored at only Tooele Army Depot and only in small quantities. The inventory in the U.S. stockpile outside the continental United States (in Europe or on Johnston Atoll in the Pacific Ocean) totals 6%.



TOOELE COUNTY
STATE OF UTAH

OFFICE OF THE COUNTY COMMISSION
TOOELE COUNTY COURTHOUSE

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Pamela Lath, Personnel Officer
Cheryl Adams, Admin. Secretary
Kari Seger, E.M.C.

Attachment 2

[Enclosure Omitted]

April 27, 1990

The Honorable James Hansen
Representative in Congress
1407 Longworth
House Office Building
Washington, D.C. 20515

Dear Representative Hansen:

As Tooele County becomes more involved in the planning and subsequent implementation of the Congressionally mandated Chemical Stockpile Emergency Preparedness Program (CSEPP) at Tooele Army Depot (TEAD), our lack of financial wherewithal to deal effectively with this event is becoming more and more evident with each passing day.

Since the creation of Tooele Army Depot, Tooele County has been a strong advocate of its mission of maintaining our nation's defense. Throughout the years, our County has made every effort to assure that those resources at our disposal were used to complement the activities and goals of the Depot.

At this critical time, however, we find ourselves (the elected County Commission) at a serious crossroads in our relationship with the government's objectives relative to the chemical demilitarization program, due to circumstances well beyond our control. With the escalating storage risks and an accelerated construction program at TEAD to place into operation a fully functional chemical demilitarization facility in 1993, we see a crucial need for the County to be able to implement an emergency response capability within our County's organizational structure.

The resources necessary to accomplish this are costly and well beyond the scope of our County's financial resources. Bearing this in mind, we have requested needed funds through the Chemical Stockpile Emergency Preparedness Program with which to address these needs. A copy of our requests is attached for your perusal.

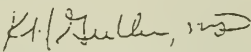
Should these needed funds not be forthcoming in a timely manner, we will be placed in the untenable position of opposing the start up of the TEAD demilitarization facility. We are sure that you can understand our position on this matter, insofar as the safety and well-being of our constituents is of the utmost importance to us, and can not and will not be sacrificed for any reason.

We are greatly appreciative of your support in the past and we are confident that you can understand our position in this matter and support us as we work to accommodate the goals and objective of all parties concerned in the safe completion of the disposal of TEAD's chemical stockpile.

If you have any questions, or if you need additional information, please feel free to contact Kari Sagers, the Tooele County CSEPP Coordinator, at 882-5550, Ext. 377.

Respectfully,

TOOELE COUNTY


KELLY H. GUBLER, M.D., Chairman
Tooele County Commission

KHG/ks

Enc.

cc: Lorayne Frank, Utah CEM Director
Col. Roy R. Willis, Commander TEAD
Doug Hawkins, TEAD CSEPP Manager
Cal Latsis, Salt Lake County CSEPP Coordinator
Gary Clayton, Utah County Emergency Management Director
- Bob Hite, FEMA Region VIII

Mr. HUNTER. Thank you very much, Ms. Sagers. We will try to help in some of these areas. That looks like something we could talk to our Federal agencies about.

Yes, Mr. Baesler.

Mr. BAESLER. Mr. Chairman, if we are through, when we get through with this panel, would it be permissible for me to ask General Orton some questions before others?

Mr. HUNTER. Yes, we are going to bring General Orton back. The first panel will be coming back, so we will be able to ask questions and a number of questions and issues that have been raised during the other panels. So do you have any questions of this panel?

Mr. BAESLER. No, sir. You have asked them.

Mr. HUNTER. OK.

Mr. Browder, any questions?

I might say, the gentleman from Maine, Mr. Longley, a very excellent member of this subcommittee, is here.

Mr. Longley, any questions?

Mr. LONGLEY. Yes, Mr. Chairman.

First, I just want to compliment you on holding these hearings. It is clearly a labor of love to deal with this subject. As a new member, as you can imagine, I have quite a bit of information to absorb.

What strikes me, however—and I was looking through General Orton's chart showing the program cost growth and the amount of increases, and I did some quick math, and I gather that the numbers indicate we have destroyed about a million tons of chemical and biological ammunitions out of a total of about 30 million. Is that number correct? About that—30,000 tons, excuse me. We have destroyed 1,000 tons and we have got 30,000 to go.

In doing some quick math, at an estimated program cost of about \$12 billion, it takes about \$1,500 a pound, or roughly \$1,500, to destroy the equivalent of the weight of this cup, or this pitcher, with a little bit of water.

Looking at the chart and seeing how the total program cost seems to increase each year, it reminds me a little bit about President Reagan's story about the bureaucrat in the Department of Agriculture who one morning was found to be crying at his desk, and when asked the reason why, he explained that his farmer had died and he no longer had somebody to work for. I don't mean this facetiously.

I might also add that I served in northern Iraq during Desert Storm. I have firsthand experience seeing some of this type of material and equipment, particularly biological and chemical type of materials.

But clearly there is an economic question here that I have got to ask, and I respect the fact that you are from across the country. I would like to know, at each facility, roughly how many jobs are we talking about? Is there really a commitment in the program to getting rid of these, or are we finding more and more ways to spend money and avoid dealing with the ultimate issue?

Particularly I am concerned with the fact that, again, based on General Orton's overview, that we are building anywhere from 10 to 15 separate facilities to deal with this. I understand that that might have something to do with concerns about interstate transportation, but, again, looking at the cost and looking at the very

difficult decisions that we have to make in this Congress, \$12 billion is an awful lot of money.

A third issue relates to the No. 1 priority that each of you feel with respect to, what do we really need to do to get these weapons destroyed and get these agents destroyed?

So, really quickly, three questions for each member of the panel. One is: How many jobs in your specific area? Two is: Is there really a strong feeling of the urgency of the need to eliminate these weapons and these chemical and other agents? And three is: Assuming that is the case, what is the number one priority that we in the Congress need to focus on to make sure that this happens at the lowest possible cost, consistent with public safety?

Mr. Williams, if we could start at your end.

Mr. WILLIAMS. I am not really clear on how many jobs it would provide. The issue of jobs in the Kentucky site, and all the sites, frankly, has been raised.

The way we look at it, there are going to be—if an alternative technology is implemented, there are going to be a certain number of jobs that are going to be required to do whatever that alternative is.

For example, if it is reconfiguration, there is going to be a containment building within which we reconfigure these. If there is an incineration facility, there is still going to be a containment building.

Mr. LONGLEY. I am asking primarily existing jobs. I just am getting a sense that the program seems to be getting bigger and bigger and bigger and more complicated and more expensive. We are not really getting to the heart of the issue, which is getting rid of those material?

Mr. WILLIAMS. You are talking about existing jobs to monitor the stockpile?

Mr. LONGLEY. Right.

Mr. WILLIAMS. Oh, I think in Kentucky there are about 50 people that are employed directly or around the chemical activity as it is now, because all they are doing is monitoring what is there.

Mr. LONGLEY. Is there a sense of urgency at that facility of the need to get rid of these materials?

Mr. WILLIAMS. Clearly there is a driving force—I think I can speak on behalf of all the communities—to get these munitions destroyed. However, the primary criterion across the board is safety. That is the number one issue on everyone's mind, is we want to get it done quickly, but if a better way, if a safer way, takes a little longer, then, you know, we would rather go the safer way.

So I think I can speak on behalf of all the citizens in these communities, at least on the part of members of our organization, that the number one priority is clearly safety, both public-health-wise and environmentally.

Mr. LONGLEY. And given that standard, what is the No. 1 priority to move this process along, to get rid of these materials?

Mr. WILLIAMS. Speaking on behalf of our organization, it is to change the technological track that we have been on for 10 years and move into a cooperative framework within which the citizens, the impacted stakeholders in this, the Army, the Congress, and the

State permit authorities can all work together to try and expedite this process.

Where we are right now, unfortunately, is we are in a very confrontational mode because the technology that has been selected by the Army is unacceptable to the community, and that creates clearly a much longer process, a much more expensive process, a much more combative process, that nobody wants. It really is standing in the way of being able to move forward.

Now I might just add that we feel that the first step that should be taken, if safety is the No. 1 criterion that the Army agrees on, the Congress agrees on, the citizens agree on, that we should first look at a way of mitigating the risk of the munitions as they are now, which in our opinion would be to reconfigure those munitions, to separate the agents away from the explosives and the delivery systems that they are in, so that you can reduce significantly, if not eliminate completely, the risk of exposure to chemical agent to the members of the community.

Mr. LONGLEY. Well, thank you. Let me just simplify. Just if each of you could tell us what, in your view, is the number one priority to get this process moving.

Mr. NUNN. The Aberdeen situation, one thing that you should know, I guess, is the Chemical and Biological Defense Command is at Aberdeen and also the Chemical Demilitarization Program headquarters is at Aberdeen. So there are a significant number of problems in connection with the demilitarization program that are at Aberdeen.

The stockpiles there, I don't think there are many people that are involved necessarily with the guarding of the stockpiles. There is probably the same situation as Kentucky. We just have bulk containers that are in a barbed-wire fence that sit down on the river that nobody would really know that they are there. So that is that part of the question.

The second part of the question is, I think that what we have to do is come up with an approach to dispose that is site specific, taking into consideration the stockpile at a site. The Aberdeen stockpile, for example, doesn't need the same type of disposal process or disassembly process that another site may need, and there are other approaches that may work at Aberdeen that might not work at another site that would be more cost effective.

We are taking a one size fits all approach, and we should have taken a site-specific approach from the outset and say what is the best technology for this particular site, given these particular factors, and we have been asking the Army to do that. We are hoping that this alternative tech program that we have undertaken will give us a chance to have a site-specific approach to each particular site.

Mr. LONGLEY. Thank you.

Mr. Johnson.

Mr. JOHNSON. Repeating a couple of things that were said, I think the priority—our citizens feel the priority is to reconfigure, take away the danger, separate the explosives, the propellants, from the agent, treat that in bulk or maybe just store it in bulk until treatment comes along. The priority is just to look at some other options.

The citizens won't accept incineration; I can't see it happening there. As I told the council, I am afraid some will have guns across their chest if it starts, if construction starts.

Now, the other part you were talking about, how many people are working there. There has been a reduction in force, and I happen to know through one of my students that works there was working in the area, the reduction in the force there was so immense that they were training truck drivers to monitor the igloos and went from five chemists in the lab down to two.

So safety and surety there, some people at the depot who actually work in that area tell me, has decreased, and that frightens them a little bit. They are waiting for the new command to come in and bring more people. But, again, I think the priority is just a concerted effort to look at some of the other technologies.

Mr. LONGLEY. Mr. Harmon.

Mr. HARMON. Congressman Longley, Anniston, like Kentucky, as I understand, is 40 to 50 jobs, utilized in monitoring the stockpile storage site.

Mr. LONGLEY. You know what, I want to be clear. I don't mean to in any way demean anyone who is working in the program, but one of the things I am learning here is that once you have created a problem in Washington, the last thing in the world you want to do is get rid of it. There is just too much economically tied up in it, and, very candidly, we are not trying to make a career out of chemical weapons disposal.

Mr. HARMON. I am not aware of anybody viewing the storage as a career.

Mr. LONGLEY. I put that question to rest. If we could get right to the issue of the priority.

Mr. HARMON. But we have got some other jobs that have just started this week, and that is in Anniston we are presently re-configuring some of our projectiles. We have got two projectiles which we take to a building which the citizens supported being built last year, where we actually take these two apart.

We take the warhead, if you want to say, with the agent in it, and put that back in storage. We take the brass canister and use that for scrap. We take the propellant—there are, I believe, seven bags; six we take out on the range and explode. The fourth one has some lead contaminant, so that is landfilled. It has got a primer, for lack of a better word. We destroy that with open explosion.

So we are presently making our stockpile—a portion of our stockpile a little bit safer. And I don't have a feel for those jobs.

There was an article in the paper last week, but perhaps General Orton can say. The community has supported that because it is an obvious reduction in the risk to the community.

What does the community want? I think the community is united in getting rid of this risk. They would like to have the weapons destroyed in a timely manner.

The No. 1 consideration, I would have to say, is safety. People want it done in a safe manner. There has never been a scientific poll of the community of Anniston to see what the community wants, but in the documentation that was submitted to you last year, the citizen advisory commission submitted hundreds of letters

and petitions to the standing committee of Congress, and, of that, 96 percent were opposed to incineration, supported neutralization.

My opinion is that they—those hundreds of people felt that neutralization was safer—they still want it destroyed; they just want it destroyed in a safe manner. So I think the No. 1 priority is prompt, safe destruction.

Mr. LONGLEY. Would you agree with Mr. Williams that lack of cooperation between different and competing agencies appears to be a big problem?

Mr. HARMON. I would agree with that. I think that there is a bureaucracy that is in place and constantly changing, and in my comments, that has been part of the problem. I think the problem in Anniston is the faces continue to change, and everybody almost has to start over, and the new faces don't know the old program and the agreements that were made or the issues there, and some of the continuity is lost.

Mr. LONGLEY. Thank you.

General.

General MATTHEWS. Well, in Utah, we are poised on the brink of starting incineration. We have been incinerating, so we have a little different mindset.

Our major concern, of course, is safety, as Kari has mentioned. So we have some things that we have to do to ensure that we can respond if there is an incident.

But I don't think anybody in Utah considers this a growth industry. We have got half of it already, and we also are anxious to get it burned and over with, and when that is accomplished, you have got half the stockpile taken care of.

Mr. LONGLEY. That is great.

General MATTHEWS. So we are just in need of a little fine tuning in the area of emergency preparedness, and we are ready to get on it with it.

Mr. LONGLEY. Thank you, General.

Mr. Bennett.

Mr. BENNETT. Congressman, I think that is a very important question, the very first question you asked in terms of the number of people involved, and I certainly will not attempt to speak for Anniston Army Depot. Certainly, Pat Kirby will have to do that.

But in terms of the community, we have 6.5 full-time equivalents that have been tasked with accommodating the requirements of a congressional mandate of maximum protection for the public.

I am very much concerned that a recent decision made by the BRAC will certainly increase our requirement within the community, because we have, for a long time, been relying on some support in terms of emergency preparedness from the Fort McClellan community.

I think it is too early right now to ascertain what impact the BRAC decision will have, but on the time line of this program, I think it is going to require us to have additional people in the community to accommodate the community requirements.

Second, I think from a community perspective there is an urgency associated with the destruction of the toxic chemical agents stored at Anniston Army Depot. Our priority from the community is to accommodate the congressional mandate of maximum protec-

tion for the public. That is not an issue that is associated necessarily with the destruction process, that is an issue that is associated directly with storage and destruction.

So no matter what occurs in terms of the demilitarization issue, storage, until everything is destroyed, is our No. 1 priority vis-a-vis protecting the citizens of Calhoun County.

Mr. LONGLEY. Thank you, Mr. Bennett.

Ms. Sagers.

General MATTHEWS. Can I just raise one more point?

You know, you have talked a lot about congressionally mandated activities that are not funded, and you had a lot of debates about that in the Congress, but in fact here is a situation where you are directing the local authorities to perform something, and then those who are charged with funding what you have directed local authorities to perform, who are Federal people, are also being criticized if they are spending more money than you think they should spend.

So we are kind of caught in a catch-22 down at the local level. That is something that really needs to be addressed.

Mr. LONGLEY. That is definitely part of what I was trying to get at with my question.

Ms. Sagers, let me just go on the record with the chairman before you begin that I would be very happy to support within the procurement subcommittee the phone line for the siren. If we can help in any way, please let us know.

But from your perspective again, you know, what is the No. 1 priority to get this thing moving?

Ms. SAGERS. I would say the No. 1 one priority, again, is that support for the first responders, the people right there that are going to be the first defense on the line, and the things that affect their ability to respond, the personal protective equipment. I already mentioned the communication system; we have received almost \$2 million, I think, into our communications for an upgrade.

When we had originally designed out our system, it included, for instance, generators at two of the communication sites. But we were told we have got to cut back, we have got to cut back, is there anything you can prioritize and maybe wait until next year or the year after, something?

So we waited on generators from fiscal year 1994 into fiscal year 1995, saying we will get the items up and running, we will get the generators on the next year. That happens to be one of the items that were denied, as were generators for our communication sites.

So it is that critical communications link for those first responders and their safety with the personal protective equipment that is the focus of all of our efforts right now.

We also have asked for some assistance with manpower for a response core of people that would be available. You know, like so many per shift that would be available, just a minimal amount of people. Our proposal asked for, I believe, a total of 16 responders and then a trainer and a logistics person, so that they could spread through those shifts and have this core response, and then all of the other support people could come on line.

The reason we asked for that is, I know it was in conjunction with the realignment of the North Area of Tooele Army Depot. We

lost a lot of community resources, a lot of Army trained medical people, hazardous materials trained people, that weren't directly needed. They weren't out at South Area and wouldn't be doing the direct response out there, but they were assets and resources in our community that we felt that we could draw from if there were an accident or incident at the depot.

Those people now, most of them are gone, not in the community. So we feel like we need this little core response team, and we have not heard an answer on that particular proposal either. We are waiting to hear that, for it is that critical component of being able to respond first thing that is our ultimate priority.

Mr. LONGLEY. I appreciate it. Thank you.

Mr. Chairman, thank you.

Mr. BROWDER. Mr. Chairman, I passed up on my opportunity to question these witnesses, but I would want to observe that this is an important element, I think, of why we are holding this hearing. We can get briefed by our national leaders or the people who run the Pentagon any time, they can come over and do it, but I really didn't want a briefing on where we are on this thing, I wanted to air some problems that we have in this program, and I think this panel has done it. I would like for the following panel to, rather than continue a briefing, to respond to not only our questions but questions raised by these people, because they have raised some serious questions from the people out there who are living with this stuff.

I will just cite one example. I am concerned about the fact that the representative of the Alabama Citizens Advisory Commission, because—I don't know why—because of some kind of regulation, had to pay his own way up here. I think their testimony is very valuable to us. That is a problem; I have a problem with that.

Thank you.

Mr. HARMON. Can I make one more comment? I got a letter before I left from the CAC member who is also head of the Talladega County, adjoining Calhoun County, Emergency Management Agency, and it ties into what you brought up. In that, it says the Army has been extremely slow in delivering finished, paid-for software, such as evacuation time estimate models. In addition, they are due FEMA's operation software, and the hardware to run it is way past due. These are paid for items that are slow in coming that are important to the program.

We are also concerned about the 800-megahertz communication system that seems to be an absolute necessity to allow the different agencies to communicate with each other. We are concerned that those may not be properly funded.

So each person kind of has their own perspective. I think Mr. Bennett can comment on that. These are some of the necessities for storage as well as for destruction.

Thank you.

Mr. HUNTER. I think the committee can be a facilitator in terms of trying to see to it that other Federal agencies accommodate the local governments. I think that is going to be a key part of this.

Mr. Browder, you are right that this is an excellent opportunity for us to hear from people who really are right there on the scene.

Let me ask you folks before we go to our last panel, there is a little tension here between two competing ideas. One idea is that this stuff is there, it is at your locations, and you have got to the point where some of you in fact want to participate in terms of offering alternatives in the destruction of this, to this classic incineration model.

But the other, the competing, notion is this: If we deploy this stuff, we obviously have a transportation mode for deployment. No Governor would be able to throw himself on the grill of these trucks moving this stuff out. We would simply deploy it, just like we—although, as Glenn mentioned, when we brought it back from Europe, we didn't have to go across a lot of State lines. But nonetheless, if we had to deploy this to Europe, there was a way to do that, there was a system set up.

I know that if you all reflected on it and you had to ask yourself this question, for those of you who have it and who don't have your incinerators constructed yet—I know Utah is ready to go to work here, but for the rest of you, if you had a chance—had the alternative instead of participating in the destruction and having to live with the destruction of this stuff, if you could bid it good-bye some morning on a motorcade of trucks, that probably wouldn't be a bad thing either.

It occurs to me that probably most of the resistance to the transportation is not in the host States, it is in the neighboring States, the States to be traveled through, and yet their participation in terms of being exposed to it or participating in the danger is literally one of hours, whereas for the rest of you, for those of you which are host States, your participation involves being a host to this stuff for literally years, and yet, because you might have a reluctant Governor next door who doesn't even want the trucks carrying the stuff that you have to live with for decades to be in his State for 3 hours, he is going to possibly be able to keep us from moving down a line in which we will be able to get rid of this stuff pretty quickly.

One thing that bothers me is, if you look at this stockpile disposal schedule, the little pink lines here are the actual disposal times, and what we are going to do is spend billions of dollars on military construction, to construct these monster facilities, that will be used for a couple of years and that is it.

This last one here looks like it is going to be on line for about 30 seconds after we get it built, then we close that thing down. We tell the taxpayers, sorry, we spent that money, and that has gone.

So you might just give me your response. Maybe, Craig, we could just start with you. If you had the alternative of being able to say goodbye to this stuff, to move it to a disposal site instead of having to participate in the destruction onsite, what would be your druthers?

Mr. WILLIAMS. Well, Mr. Chairman, the policy of the chemical weapons working group around the transportation question is that there are two criteria under which we would advocate, as an organization, the transportation of stockpiles from any sites to any other sites.

The first is that the receiving community, the citizens of the receiving community or communities, would have accepted the fact that this material is coming to their community.

The second is that they are comfortable with the disposal process that is in their community that is going to treat the incoming material.

If those two criteria are met, then I would (and my wife and children would join me) be very pleased with waving goodbye to the stuff out of Kentucky on any given morning.

I think we run into a problem when we start looking at the political clout, for example, of which community is going to be the one to take it. Is it going to be the community that is predominantly a community of color, who have weighty environmental problems on their hands anyway? So on, and so forth.

Mr. HUNTER. No. Let me hold you up for a second on this point. If you look at this pink line, that is a production program, the production blueprint or the incineration blueprint here, whether you use incineration or you use something else.

If you took Tooele, which is doing 43 percent of this stuff by itself, almost half of it at one site, and if you took Johnston Atoll and you put on an extra shift—and we will talk to our experts about how—what the rate of production is—but if you ran full shifts on this thing, three shifts, you are talking about eliminating 15 percent of the total—I just did a little quick math here—maybe 10 to 15 percent of the total portion of this stuff each year. You are talking about 6 years or so of incineration, if you will, or disposal at the two existing sites.

If we are looking at this strictly from the cost standpoint but also from the convenience standpoint of getting this stuff up and gone, anybody walking in and looking at this hearing on first blush is going to say: What are these people torturing themselves over? They have got these two facilities that can do almost all of this stuff in a relatively short period of time, and they are talking about spending billions on military construction in host communities which are very uneasy with the process and with the presence of chemical weapons. Why don't they just take the two systems that are built, move the stuff to them, just like you would move stuff if you were going to deploy it, and get the thing finished?

So that was why the question: Would you rather bid it goodbye or host it and try to be part of the solution?

Mr. WILLIAMS. If those are the only two choices, Mr. Chairman, we would wave it goodbye.

But let me just mention one thing in the context of that. Senator Inouye's name was brought up earlier, and I think that is an appropriate name to bring up, since he authored the legislation to prohibit even the study of transportation, and that was clearly around the Johnston Island piece.

So if given these two choices of waving it goodbye or building some sort of facility in our location, obviously we would like to wave it goodbye.

The other piece that you mentioned, too, I think is critical, and that is the concept of spending a billion, a billion three, on a facility of this magnitude and then having to tear it down after a short period of operation.

One of the primary concerns in all of these communities is the pressure that is going to be brought to bear on this Congress or whoever is sitting at that particular Congress when these facilities have completed their primary mission. We are very concerned that at some point in time we would say, well, we spent \$1 billion, we spent \$2 billion, we can't tear these things down, we are going to change the public law that mandates their destruction and we are going to use them for other types of processes.

So that is a very high concern to us as well.

Mr. HUNTER. OK. Thank you.

Mr. Williams, we are going to do something a little unusual here, because we have Dr. Magee, who needed to be gone 5 minutes ago. And, Ms. Sagers, let me impose on you. What we are going to do is, I want you to all hold on to that question, and I want—Ms. Sagers, if you could trade places with Dr. Magee—I want to let him come up, make his statement so he can then leave for another meeting, and we will go right back to this panel. Sometimes we have to be a little creative here.

Mr. MAGEE. I thank you, Mr. Chairman.

Mr. HUNTER. We will keep the questions brief for you. Go ahead. Thank you, Ms. Sagers.

Mr. MAGEE. House schedules slip, but I do have—

Mr. HUNTER. Dr. Magee, we will make sure we get that little spinner for you, that communication bar.

STATEMENT OF RICHARD S. MAGEE, CHAIRMAN, COMMITTEE ON REVIEW AND EVALUATION OF THE ARMY CHEMICAL STOCKPILE DISPOSAL PROGRAM, NATIONAL RESEARCH COUNCIL

Dr. MAGEE. Mr. Chairman and members of the subcommittee, I thank you for the invitation to participate on this panel to discuss issues relative to the Chemical Stockpile Disposal Program from the perspective of the National Research Council's Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program, known as the Stockpile Committee.

Since I have submitted a written statement for the record, I think I would just like to end my remarks and come here for the reason I think that you invited me, and that is to answer specific questions that you or other subcommittee members might have regarding the role of the NRC, any of the recommendations that we have made to date, any of the topics we are currently working on for the future, and the role that we have played in this activity.

I do appreciate being invited here. Unfortunately, I was told I would be on sometime around 11 this morning, and I have got people waiting from Cleveland at another meeting who are getting very upset with me, and I really have to meet this other objective. So I would be happy to answer any questions that you would like to direct on behalf of the activities of the National Research Council.

STATEMENT BY

Richard S. Magee, Sc.D., P.E., DEE

Chairman of the Committee on Review and Evaluation
of the Army Chemical Stockpile Disposal Program
National Research Council/National Academy of Sciences
and

Professor and Executive Director
Center for Environmental Engineering and Science
New Jersey Institute of Technology

before the

Subcommittee on Procurement
of the
Committee on National Security
U.S. House of Representatives

JULY 13, 1995

Mr. Chairman and members of the subcommittee, I thank you for the invitation to participate on this panel to discuss issues relative to the Chemical Stockpile Disposal Program from the perspective of the National Research Council's Committee on Review and Evaluation of the Army Chemical Stockpile Disposal Program (Stockpile Committee).

The Stockpile Committee was formed under the Board on Army Science and Technology in 1987 at the request of the Undersecretary of the Army to monitor the U.S. Army's Chemical Stockpile Disposal Program (CSDP) and to provide scientific advice and counsel on relevant technical issues. This disposal program was an outgrowth of the 1985 Public Law directing the Department of Defense to begin destruction of the nation's stockpile of unitary chemical agents and munitions.

The Stockpile Committee is a standing committee, to remain in service with rotating personnel until completion of the disposal program. The committee has monitored the development and implementation of the baseline system; has visited the Chemical Agents Munitions Disposal System (CAMDS) numerous times, the Johnston Atoll Chemical Agent Disposal System (JACADS) three times, and the new Tooele Chemical Agent Disposal Facility (TOCDF) four times. Additionally, the committee has reviewed many reports and considerable technical information prepared by the government, its contractors, other agencies, interested civilian groups, and concerned individuals.

The Stockpile Committee has issued a series of reports containing recommendations intended to transfer improvements, based on the JACADS and other experience, to the TOCDF. The committee's report, *Recommendations for the Disposal of Chemical Agents and Munitions*, reviewed various alternative technologies for disposal of the chemical stockpile, and made

specific recommendations regarding the future conduct of the Chemical Stockpile Disposal Program.

The *Recommendations* report found that:

Storage risk will persist until disposal of all stockpile materials is complete. Both storage risk and disposal risk will increase with time as the stockpile deteriorates further. Existing analyses indicate that the annual storage risk to the public at each site is the same as or greater than the annual risk due to disposal. Thus, total risk to the public will be reduced by prompt disposal of the stockpile.

Consequently, the Stockpile Committee recommended that:

The Chemical Stockpile Disposal Program should proceed expeditiously and with technology that will minimize total risk to the public at each site.

The Stockpile Committee also recommended that the Army pursue an accelerated research program on neutralization as an alternative to the baseline system that might be found suitable for use at some of the future stockpile sites. In addition, it also recommended that:

The Chemical Stockpile Disposal Program should continue on schedule with implementation of the baseline system, unless and until alternatives are developed and proven to offer safer, less costly, or more rapidly implementable technologies

(without sacrifice in any of these areas). Baseline system improvements should be implemented as identified and successfully demonstrated.

Other major Stockpile Committee reports in addition to the *Recommendations* report described above are:

- the April 1994 report, *Evaluation of the Johnston Atoll Chemical Agent Disposal System Operational Verification Testing, Part II*, which identifies areas for improvement that should be implemented at the Tooele Chemical Agent Disposal Facility or other continental disposal sites before agent operations begin;
- the April 1994 report, *Review of Monitoring Activities within the Army Chemical Stockpile Disposal Program*, which recommends the upgrade of monitoring systems and associated analytical laboratory facilities for the Tooele Chemical Agent Disposal Facility; and
- a January 1993 letter report to the Assistant Secretary of the Army (Installations, Logistics and Environment), which recommends specific actions to enhance further the Chemical Stockpile Disposal Program risk management process, including the conduct of site specific risk assessments at each location where a chemical disposal facility was scheduled for construction.

Currently, the Stockpile Committee is working on two additional reports, scheduled to be published this fall, in support of the Chemical Stockpile Disposal Program. They are:

- *Evaluation of the Army's Draft Assessment Criteria to Aid in the Selection of Alternative Technologies for Chemical Demilitarization*, which is an evaluation of the Army's draft criteria for its decision on whether to pursue advanced development and demonstration of a neutralization-based destruction system, and
- *Review of Systemization of the Tooele Chemical Agent Disposal Facility*, which is an assessment of the TOCDF systemization (testing) based on aspects of the facility's readiness for safe agent operations, its agent monitoring system, and its site specific risk assessment.

Members of the Stockpile Committee are hard working, talented professionals, committed to the safe and timely disposal of the nation's unitary chemical agent and munitions stockpile.

Mr. Chairman, on behalf of the Stockpile Committee, I once again wish to thank you for this opportunity to participate in this hearing and to respond to any questions you may have regarding the committee's activities, findings, and recommendations.

Mr. HUNTER. Dr. Magee, thank you for being with us, and we will have you out of here in just a couple of minutes.

Mr. Browder, do you have any questions you would like to ask of Dr. Magee? I tell you what, I can lead off. But if you have got some you want to—

Mr. BROWDER. No; you first.

Mr. HUNTER. OK.

Dr. MAGEE. The reports are so clear, right?

Mr. BROWDER. No, I am looking for it.

Mr. HUNTER. Dr. Magee, what is your overall evaluation of the NRC with respect to the safety of chemical agents and munitions in storage and safety during disposal operations? Do you folks have any hangups with the blueprint that is laid out?

Dr. MAGEE. I think your question was broad-based. It says the weapons in storage and in disposal. I think the way that the National Research Council has looked at this issue has been that, as you correctly pointed out in your briefing paper, total cumulative risk, and even though we built our initial recommendations based on the programmatic risk assessment, I think, as you heard earlier this morning, as we are starting to get the site-specific risk assessments in, we are finding that it is the storage risks that dominate the overall risk of this program.

If you add to the storage risks, then the risks of disposal operations, which is a combination of the risk of removing the munitions from storage, the disassembly process that we have been discussing here throughout the day, and then the ultimate destruction mode for the agent itself as well as for the various munitions that they are stored in, the NRC found, in looking at this entire program, that what was really driving it was the storage risk, and therefore we recommended that we continue with the baseline technology.

However, as also has been pointed out, we did recognize that, since there were some site-specific areas such as Aberdeen and Newport, it is quite possible that there could be a stand-alone technology, neutralization, neutralization followed by bio, which might in fact meet the needs of that particular stockpile.

So our feeling is that we are not going to find, as mentioned this morning, a silver bullet that is going to look at the agent destruction process and reduce that risk to the point that the overall risk of the storage and disposal operation is going to go down. The longer we delay, as we pointed out in our reports, the longer the total cumulative risk to the communities is going to be affected.

Mr. HUNTER. Do you have any evaluation in terms of risk of transportation?

Dr. MAGEE. No. When I got on this committee, I was told that I couldn't even ask that question because the Congress had mandated that—

Mr. HUNTER. It is against the law for you to think about it.

Dr. MAGEE. Yes. We really appreciate it.

But I would like to make a comment. I know the transportation option is obviously an interesting one, and I think the flexibility for both the Academy and the Army to look at it would be a good one.

However, you have to recognize that the capacity of Tooele is set up such that that facility will not be able to accept any new agent

until the year 2002. In other words, it is going to be working full throttle over the next 6½ years to get—

Mr. HUNTER. Are you sure it is going to be working full throttle? How do you define full throttle?

Dr. MAGEE. Except for the down times, it is going to be running 24 hours a day through the processing. OK.

Mr. HUNTER. So there is no more capacity?

Dr. MAGEE. No. So what you are looking at—and I wanted to make sure that was clear, because I didn't think it was clear in the discussion before—that you are adding on now to the endpoint, bringing additional munitions to that location.

Now that is different than the original concept, where you might have had two regional or two national facilities and you would have built capacity, OK, at those facilities to complete the job by the year 2004. So I just think you should keep that in the back of your mind.

That does not mean, however, that certain transportation options are not viable. One example, for example, is, if we could use a neutralization base technology and reduce the agent to a hazardous waste, as has been already pointed out by many people, hazardous wastes are transported all over the country every day, and there are other disposal facilities which quite possibly could handle that waste stream.

So I believe opening the option to look at it is a wise thing to do, because it may give us opportunities both in scheduling and in costs to handle this program.

Mr. HUNTER. So you are talking about, if you do a neutralization program, this is kind of a hybrid between what some folks have contemplated in the baseline. You do a neutralization. That allows you to do two things: One, to transport; and, two, to delay to some degree the total destruction of the substance. So you could use maybe a couple of—instead of doing the big MILCON, big military construction projects, you could simply use existing facilities, maybe add an extra facility, and stack this stuff up for a bit.

Dr. MAGEE. Well, possibility. But let me also give you another caution.

Mr. HUNTER. There are big MILCON costs associated with the neutralization.

Dr. MAGEE. What I am suggesting is, once the agent has been neutralized and you have indicated there is no more agent, it now really just becomes a mix of chemicals. It may have to go to a second process, biological, but we then, in our earlier recommendation, suggested that one option might be to neutralize and then to transport to an offsite incineration facility, commercial facility someplace else. I mean those options are available.

However, it is just not enough to say that you can go ahead into these munitions right now and take out the agent and neutralize it, because you are still going to have residual agent left in either the munitions or the ton containers, and you don't want to have those containers or munitions sitting around. So you have to have in place a system that you can then deal with the entire aspect of it.

So, for example, once I punch and drain, I am not going to get all the agent out. I then have to immediately treat and destroy the residual agent that is in that munition.

So, again, it is not an easy problem. You have to look at it in totality.

Mr. HUNTER. That has been mentioned by Mr. Williams and Mr. Nunn, the disassembly of these systems, and I would think that is a point of exposure in itself.

Dr. MAGEE. Exactly.

Mr. HUNTER. That is going to be—could be a little bit tricky.

Dr. MAGEE. That is why the whole question of reconfiguring—

Mr. HUNTER. In the Army we used to ask for volunteers for these jobs.

Dr. MAGEE. That is why I think the reconfiguration issue has to really be carefully looked at, because it is very complex. There has to be a lot of things in place before you start it, and you have to think through what happens once you open up a munition or a container to remove what you can and treat it.

What are you going to do with what remains behind? And particularly in the bulk storage containers with mustard or even in the munitions, we are finding a gelled residue behind which has to be treated, I would say, immediately. I mean we just can't leave it hanging around.

Mr. HUNTER. Let me ask you this question. What is your overall evaluation of the Federal Government's analysis and evaluation of the alternative methods? Are we doing very little? Are we doing enough? Or should we really be pursuing aggressively, the neutralization alternative?

Dr. MAGEE. Well, we are in the process of following the activity on neutralization. I would say that the results to date are promising, they are encouraging.

On a personal basis—I can't speak for the committee because we will address that later on—I believe the program is being pursued with diligence. The National Research Council just did not feel that it was prudent to have a major alternative research program going on in the Army with four or five alternatives in light of the recognition of how long it takes to determine laboratory feasibility, to test out and bench scale, to move to pilot plant, to then go to commercialization, recognizing that that was time consuming and there were probably only a limited number of technologies or approaches we could use that could fit into the time frame, even allowing for the possibility that the time frame may slip.

Mr. HUNTER. How about things like Mr. Nunn talks about: the simplicity of mixing mustard gas up with water, though? Aren't there perhaps some areas where you could do some alternative work on neutralization fairly quickly, and wrap this stuff up pretty quickly?

Dr. MAGEE. Well, first of all—

Mr. HUNTER. I don't know whether you were here when there was a discussion of that.

Dr. MAGEE. I will also point out that I went to Iraq after the war on behalf of the United Nations, built a neutralization plant, built an incinerator in Iraq to destroy the Iraqi chemical warfare, so I

am familiar with it. However that agent was GB and there has been prior work in doing neutralization of GB.

Until recently, there really had been no proven way of neutralizing mustard. OK, you might say this seems pretty simple. Yes, it does, because there are some byproducts you have to deal with. It does look promising, but people haven't done it before. So I think it is a possibility. But, remember, you still have metal containers that have to be treated. You have energetic and explosives that have to be treated.

What makes Aberdeen and Newport so attractive is there is simply one type of container, one type of agent and, therefore, I believe these alternative processes are very attractive. However, as the National Research Council has said, if we prove those technologies, we could in fact then be substantive at other sites to treat, for example, the bulk agent that we are talking about. You need the entire system in place, so once you activate the bulk agent, you can do the others. The National Research Council is on record saying we don't see another alternative other than incineration to decontaminate metals and to handle explosives and propellants.

Mr. HUNTER. Dr. Magee, thank you for being here.

Mr. Nunn, did you have any questions?

Members of the panel, since we have our representatives here from the local areas and you are one of our national experts on this, folks. If you have any questions you would like to direct to ask Dr. Magee before he takes off here. Please go right ahead.

Mr. Nunn might want to engage here a little bit.

Mr. NUNN. When the National Research Council issued its report, what timeline were you looking at in terms of an alternative technology? Can one be developed in 5 to 7 years?

Dr. MAGEE. That was our recommendation. We thought that the ones we recommended could be in probably a 5-year timespan with the one uncertainty being the permitting question. If we have a favorable climate in the permitting process—whether it be Maryland or CAMD, and we choose to do the piloting there or at Newport, for example, then I believe it is certainly doable to do a pilot operation in a 5-year period and maybe less.

Mr. NUNN. And just one followup question. With respect to the issue of the pilot plan, what if a stockpile storage site actually did the piloting? Would that cut the time down for disposal and improve that, make this process a little quicker?

Dr. MAGEE. The answer is obviously, yes, because you could then use the pilot facility which is at that location as maybe one of two or three similar trains. We are talking about batch processing situations here to continue to destroy agent while you were building additional neutralization capacity in a similar tank, then with a biological reactor afterward. That would certainly accelerate the process.

Mr. HUNTER. Mr. Williams.

Mr. WILLIAMS. Are you familiar with the 1985 A.D. Little M55 reconfiguration study where there was a report.

Mr. HUNTER. I hate questions like that, don't you?

Dr. MAGEE. I am going to try to remember. This is memory time.

Mr. WILLIAMS. This is the one where the Army commissioned a private sector corporation who is involved in baseline now to look

at ways of taking specific weapons apart; in this case the most problematic of the weapons, the M55 rockets, and they did environmental impact statements, cost analysis, time projections and so on with the most problematic munition.

In that process, they noted that these metal containers and so on could be washed out with a decontamination solution, basically the same as you would neutralize the agent, which would render the housing within which this agent was contained down to XXX level, which means it is not contaminated, but the Army can't release it to the private sector.

I am very familiar with that report. And it seems to contradict your conjectural point that there is no other way to decontaminate any of these munitions other than to incinerate them.

Dr. MAGEE. Let me be precise on that. You are exactly correct in the sense that XXX will get it down to the point where the munition is decontaminated, but it is still under Army control. Ultimately, however, to release that container, that metal to the public sector to a private recycler, requires thermal treatment. So there is an intermediate step that could be taken, and then the container incinerated someplace else.

The real question I think there, Mr. Williams, is also the question of what do we do with the anywhere from 5 to 10, to 15, to 25, to 50 percent in some cases, residual heel that is left in a container of mustard, OK? How did we deal with that? We don't have a way that I am aware of today to remove that stuff and then get access to the metal itself. It is a challenge.

Could a method be determined? I think with enough time and enough money, I think those of us in the scientific community think we could do just about anything. But we certainly don't have it available to us today.

Mr. HUNTER. OK. Well, thank you very much, Dr. Magee. Anybody else want to—

Mr. HARMON. I had one question. At a couple of our CAC meetings, some interesting things came up as we discussed neutralization and one of those was when Charles Baronian, the program manager, was asked about the 8 million pounds that they had neutralized previously. He acknowledged that they had the industrial knowledge on how to do that. Some of the final finished product was not really adaptable, and he recognized that a lot of the data they had used was erroneous: They were not really detecting agent in the finished product, the waste could be cut down dramatically, and he felt like they could ramp up the neutralization process much more than they had.

The following meeting Dr. Joe Barnett, who is on the alternative committees, estimated a plant could be up and running in 2 years. I think if we look at all alternatives in one lump and use the same criteria, then it is different than if you look at specific opportunities that are there and what our Citizen Advisory Commission were told by Charles Baronian and Dr. Barnett is that neutralization is much more promising short term because of the experience that was there and because of the development that has been going on at Aberdeen.

The knowledge is there with GB, as you demonstrated in Iraq. The work that is going on at Aberdeen is more with mustard and

VX and that is your two other majority components. Am I correct in that?

Mr. MAGEE. I believe you are correct. I also believe it is one of the reasons why the Academy recommended advanced research in that area, because there was a previous history with GB so we knew that which might be transferable to VX and to mustard. And the other attractive aspect of it was low temperature, low pressure and we felt that from a safety viewpoint, that offered us certain alternatives, also. So those are all pointed out in our report.

Since I am probably going to end at this point, let me also suggest, if you can provide support funds to the CAC's to travel so they don't have to pay out of their own pocket, I would say, personally, that would be of value to the NRC because we did invite all the groups to Utah. The ones that came we found to be of extreme value to us in being able to get the same type of input that you are getting today, and it was unfortunate that not everybody could participate due to funding limitations. So if you can remove that limitation, I think that will help all of us as we all work to solve a very, very complex technical problem.

From an engineering, scientific, professorial viewpoint, this is not an easy job. No one ever designed and built these weapons with the idea that some day we would have to take them apart and dismantle them and the complexity of these plants and the care required to ensure safety. That is the No. 1 point of the NRC also, that safety should not be compromised at any point which, unfortunately, it is going to be a costly process.

However, I think you have already heard today that there may be some ways of looking at it that may find some cost savings that I think we would all like to see at this point.

And, again, I thank you for the opportunity. I know the NRC would be happy at any time, to come back and discuss in detail with your staff any of the reports we have written, the basis of the recommendations, and how we came to those in here. We would be delighted for that opportunity.

Mr. HUNTER. Thank you, Dr. Magee. Catch that plane. We will be in touch. And Ms. Sagers, thank you for letting him take your place. Now let us go back to this. We certainly appreciate your testimony. Let us go back to the basic question we asked you.

I think we had reached Mr. Johnson. From a community point of view, if you had the choice between bidding this stuff good-bye in terms of being transported to a couple of points around the country rather than having to host these chemicals through their extermination, which would you take?

Mr. JOHNSON. During our meetings, citizens would bring up that point. Why don't we transport it? We would always tell them we can't, there are congressional constraints, we can't—we can't really talk about it. So I don't know. I can't wait to get back, have a big public meeting and say, hey, there are four or five Congressmen who maybe want to revisit transportation, what do you think? Until then, I just don't want to give my personal view. I would like to hear from the citizens.

Mr. HUNTER. Certainly. Yes, sir, General Matthews.

General MATTHEWS. I guess it depends on whether you are the transporter or the recipient that you would have—

Mr. HUNTER. Back to those sheep again, right?

General MATTHEWS. That is right. I would have to say that when we fashioned the slogan for the Olympic bid, "The World is welcome here!" we didn't have chemical weapons in mind. But I am sure that one of the important things, however, for us would be the caveat that the doctor gave: that is we would find it very uncomfortable if we were continuing to store the weapons which are already present in order to accommodate the arrival of weapons from other States.

So it is a long-term process and we are at risk because of the storage of those weapons as they are, in the environment of an earthquake-prone region. That would be very unpalatable for the State.

Mr. HUNTER. What I am thinking about, general, is this. Just rough mathematics, say that you folks basically when you are up and running, you are going to be knocking out 7 percent of the chemical weapon inventory on an annual basis. I mean, if only you folks ran and nobody else did anything, in 15 years, you would have destroyed 100 percent of the inventory. I know Jim is not here, but I am sure, he has a position on this which is probably pretty similar to yours.

However, in terms of doing just about anything else, if you had a nice, new facility that cost a lot of money, the idea that again that we are going to spend this enormous military construction money around the States in some cases for very, very short windows of production and then we are going to close them down, doesn't make a lot of sense, fiscally.

General MATTHEWS. Yes; I understand. And the Governor is currently opposed to that process, but I think there is also, you know, the issue of, if you can get it to hazardous waste.

Mr. HUNTER. That might change the whole thing.

General MATTHEWS. That is a different ball game. By the time we are through with our stockpile you may be to that point anyway.

Mr. HUNTER. Yes, that might change things. Well, thank you very much.

Mr. HARMON. Congressman.

Mr. HUNTER. Yes, sir, Mr. Harmon.

Mr. HARMON. I am very pleased with my community. We have not taken the position, ever, not in my back yard. Like Kentucky, we never really considered transportation as an option. There is very strong opposition to transportation. Transportation "In," I mean, there has been a very solid front on that. Transportation out has never really been discussed. It was kind of protecting our own. Let's take care of our own problem, I think has been the attitude. What position would the community take, given the two choices?

I can't speak for the community, but I can speak for the members of the CAC as I was polling them or as they were being polled for comments for this meeting. The first one that was contacted, who was invited to appear here today, said well, we will always get in trouble when I bring this up, but why don't we talk about transportation "out". The second person said, I like his idea and we wouldn't have to ask any other Governor because we can take it straight to the Port of Mobile in Alabama and not have to ask

other Governors if we can ship it through. Another commissioner thought that was a good thought process.

My gut feeling is that a lot of the citizens would be happy to see it gone, would love to see the threat gone and, if transportation "out" was an option that was available to them, I think they would support that.

Mr. HUNTER. OK; thank you.

Yes, Mr. Nunn and then we will move on to our last panel again. Go right ahead.

Mr. NUNN. Just one thing that may help the commission in terms of the transportation issue. At the time the decision was made not to transport, we didn't have these other 215 sites of the nonstockpile issue facing us. We were just looking at eight sites. Now, with the treaty we have, 215 sites across the country with nonstockpile material. The rationale we were told is you can't move it, it is too dangerous. If that rationale holds true, then you can't move the nonstockpile stuff either.

So do these communities, these other Congressmen, do they want a facility like this built in their State because they have chemical weapons? We are going to have to move it. I mean, that is the reality of it.

Mr. HUNTER. What we need here is a General Patton. General Patton's secretary, World War II, works for me and she is a wonderful lady named Helen Tracy. I believe it was she who told the story about Patton being told at one point by Omar Bradley's headquarters that he couldn't take a certain town because they had figured out that it couldn't be done with the resources that he had. And he wired back to them, I have already taken it, do you want me to give it back?

It is too bad we can't just move this stuff to a wonderful place, maybe—maybe Johnston Atoll, fire up the burners and get it done. But, it is going to be a difficult issue.

Yes, sir.

Mr. BENNETT. Mr. Chairman, I certainly have not done a detailed assessment of the transportation issue, but at first blush, it seems to me there are three points that need to be made. The first point is, any time you are transporting these toxic chemical agents in their current form and you get them closer to the community, the community is going to be at greater risk. That has to be considered. Transportation is going to probably change entirely the risk analysis for this issue.

I agree with Jim, I can't speak for the other citizens of Calhoun County, but I certainly would rather be a "sticker" than a "stuckee". I would rather see them go, than come.

Mr. HUNTER. Well, I agree with that. I am just thinking in terms of equity of risk, you have the host sites right now that are going to be stuck literally for—and have been for decades with this stuff; and you are asking the neighboring Governor to put up with it for 2 hours, and it is too much for him, mission impossible. Well, that doesn't seem to be very reasonable.

Mr. BENNETT. And the third point I would like to share with you is from a community perspective, the requirements to mitigate, the requirements to prepare and the requirements to respond—in the unlikely event there is an accident or incident—they are going to

increase probably during transportation. I am not sure about recovery. Recovery might stay the same.

Mr. HUNTER. They will increase but, on the other hours, after a couple of hours, or a couple days, or a couple weeks, they are gone.

Mr. BENNETT. Absolutely.

Mr. HUNTER. And that, the community being on the edge, literally, as some of our communities have been for decades, that is over.

Mr. BENNETT. And the other thought I had was that it would certainly be cost effective to send the 120,000 citizens of Calhoun County for an extended vacation at the cost of the Government while this movement takes place.

Mr. HUNTER. We will send them some copies of C-SPAN, that will put them to sleep. When they wake up, it is all gone.

Mr. Williams wants to wrap up and then we are going to move on to our last panel.

Mr. WILLIAMS. Two things. One is we have to keep in mind what it is we are shipping. In other words, are we shipping the munitions as is? In other words, shipping live M55 rockets through St. Louis is different from reconfigured, treated material that can go through St. Louis. That is one thing.

Second, on behalf of the coalition members in the Pacific, I have to go on the record very firmly in letting you know on their behalf, not only the NGO's but the governmental organizations in the Pacific Forum, that the level of opposition to shipping chemical weapons into the Pacific on top of the German stockpile would be met with a great deal of resistance.

Mr. HUNTER. The great thing about Johnston Atoll is it is so small, it looks like it is only about 100 acres, it is tough to put on a big demonstration.

Mr. WILLIAMS. It is a tough place to march.

Mr. HUNTER. Well, ladies and gentlemen, thank you so much. This is a real tough problem and, as one of the great things about the American character is that we all try to sit down and work it out. And you have our assurance that we are going to be working this thing with you and try to see to it that we resolve this problem in a way that will be satisfactory. You know, it is an interesting problem we have. As was mentioned, this stuff wasn't made so that it could be disassembled. On the other hand, it is not bad that we are in a position now to consider how to disassemble it, eliminate it.

I know I want to thank especially Mr. Browder and Mr. Hansen for really providing the impetus to have this hearing, too, and Ike Skelton and to a number of other Members who are hosts to this material in their districts.

Mr. HUNTER. So we will go to our last panel now and we want to thank you folks for being here. You might stick around, listen to this last panel. They are going to respond to some of the issues that you brought up. Dr. Magee is already gone, but Dennis Kwiatkowski of the Federal Emergency Management Agency, FEMA, is here. He is going to be joining our panel. Let us get our first panel back up again.

Mr. Kwiatkowski, since you did not give a statement yet, why don't you start.

**STATEMENT OF DENNIS KWIATKOWSKI, DEPUTY ASSOCIATE
DIRECTOR, PREPAREDNESS, TRAINING AND EXERCISES,
FEDERAL EMERGENCY MANAGEMENT AGENCY**

Mr. KWIATKOWSKI. Mr. Chairman and members of the subcommittee, thank you for your invitation to participate as part of a panel of technical experts to discuss issues relative to the Chemical Demilitarization Program and the Chemical Stockpile Emergency Preparedness Program from the perspective of the Federal Emergency Management Agency. The overall mission of FEMA is to protect and, in times of emergency, aid the people of the United States through leadership and partnership for a comprehensive, all hazards emergency management program, including mitigation, preparedness, response and recovery. This mission uniquely positions the agency to reach out to State and local governments, through the Chemical Stockpile Emergency Preparedness Program, known as CSEPP, and aid the Department of Defense in aiding State and local emergency preparedness with respect to the chemical weapons stockpile. Pursuant to a memo of understanding signed with the U.S. Army in 1988, FEMA provides liaison between State and local governments and the eight military installations, channels financial assistance to State and local governments and provides technical assistance to State and local governments to develop, implement, evaluate chemical emergency response measures. FEMA is proud of the accomplishments made since 1988 in the preparedness of communities surrounding the stockpile sites. These communities had few capabilities to deal with a chemical agent accident. Today they are clearly better prepared in terms of plans, procedures, assistance, resources, know-how much to protect the lives and property of their citizens. However, we realize our mission is far from complete.

The Chemical Stockpile Emergency Preparedness Program is unique in the Federal Government. It is a complex program managed by both military and civilian agencies in partnership with State and local governments, and emphasizes the use of the term partnership, because that is the goal we are striving for in day-to-day management of the program.

We have been working very closely with our partners to make sure that we have taken positive steps to resolve our differences, streamline procedures, and resolve processes and decisionmaking and work together as a team to make this program operate efficiently, safely, and effectively. Our mission is to save lives and protect property. We can accomplish that mission when we work together towards that common purpose.

This partnership has led to numerous recent improvements in our CSEPP community's response capabilities in training the total of 13,596 persons who enrolled in CSEPP related and other emergency preparedness response training programs between June 1991 and July 1994. New CSEPP-specific courses on decontamination, use of auto injectors and personal protective equipment now are available and other courses are nearing completion.

In the area of exercises, 32 federally managed and evaluated CSEPP exercises have been conducted. These exercises test and validate plans, procedures, systems, equipment and resources necessary to respond to a chemical incident.

Planning. Twelve of a proposed fourteen planning guides have now been issued in final form. Completion of the final two guidelines, medical and reentry and restoration, is a priority for FEMA. Emergency operating centers, each CSEPP State and immediate response zone community has a dedicated EOC for a total of 24 operational EOC's.

Sirens. Sirens have been installed at six of the eight sites. At the remaining sites, sirens are pending installation or contract awards.

In the area of communications, all CSEPP sites have an operational, dedicated nonpublic switch and telephone system linking EOC's to installation, State and IRZ counties. The common purpose with which FEMA, the Army and State and local governments administer CSEPP, has also been clearly demonstrated in recent progress made in addressing problems identified by the GAO.

To emphasize financial management reporting, we have added staff in all FEMA regional offices. These staff have specific responsibilities for financial accountability within the program. A joint FEMA-Army-CSEPP office has been established and recently completed its first 100 days of operation. And we are very pleased to see that the GAO has acknowledged that funds have been effectively allocated toward program priorities, since that has been one of our primary objectives throughout the management program.

For the past year, FEMA has worked to streamline the process by which it conveys funding to the States. Central to that process are program improvements being developed through a national performance review initiative. The results of this initiative have been utilized in generating a performance partnership agreement [PPA] between FEMA and States for FEMA's other mitigation and emergency preparedness programs.

The PPA process will focus on program accomplishments rather than line-item accounting and will provide increased flexibility while at the same time improving programmatic accountability.

It is important that we underscore a critical element of the program that the GAO office addressed—flexibility in Federal, State and local implementation of the program. We are operating today in a climate that clearly calls for devolution of Federal programs to the State and local levels, much of this in direct proportion to the degree that State and local governments believe that Federal programs do not always take into account specific State or local needs, problems, or unique requirements that must be addressed.

The CSEPP program is no different. The program encompasses a broad geographical area from Oregon to Maryland. As we have learned in our mitigation, preparedness, and response and recovery programs, tailoring the emergency management programs to meet State and local needs is critical to the success of their implementation. That is why FEMA is transitioning from a prescriptive system to a flexible, functionally oriented approach that allows State and local governments to meet their needs.

We do not view performance accountability as a form of micro-management but, instead, the Federal Government working in partnership with State and local governments to address their specific needs and concerns while at the same time ensuring that there is appropriate accountability for the use of Federal funds.

To underscore this commitment, FEMA Director James Lee Witt and Assistant Secretary of the Army Gilbert Decker recently met to discuss ways in which to improve the oversight and management of the program which will lead to more cost-effective approaches in program delivery. I assure you that FEMA, together with our counterparts in the State and local governments, is committed to improving the CSEPP program to make it cost effective and an example of efficiency in Federal programs.

We look forward to working closely with the subcommittee in its oversight mission to ensure program costs are reduced while we adhere to the mandate of the program, maximum protection of lives and property in CSEPP communities.

STATEMENT FOR THE RECORD

DENNIS H. KWIATKOWSKI

DEPUTY ASSOCIATE DIRECTOR FOR PREPAREDNESS,
TRAINING, AND EXERCISES

FEDERAL EMERGENCY MANAGEMENT AGENCY

BEFORE THE

SUBCOMMITTEE ON PROCUREMENT

COMMITTEE ON NATIONAL SECURITY

U.S. HOUSE OF REPRESENTATIVES

JULY 13, 1995

Mr. Chairman and members of the Subcommittee, thank you for your invitation to participate as part of a panel of technical experts to discuss issues relative to the chemical demilitarization program and the chemical stockpile emergency preparedness program from the perspective of the Federal Emergency Management Agency (FEMA). I also appreciate your providing the Agency with the option of submitting a written statement, since there are a number of issues of interest to the Subcommittee that are, perhaps, best addressed in a written statement in the interest of time. I am pleased to be representing a program which has brought a heightened preparedness to the communities surrounding our nation's chemical stockpiles.

The overall mission of FEMA is to protect and, in times of emergency, aid the people of the United States through leadership and partnership for a comprehensive, all-hazards emergency management program, including mitigation, preparedness, response and recovery. This mission uniquely positioned FEMA to reach out to State and local governments, through the Chemical Stockpile Emergency Preparedness Program (CSEPP), and aid the Department of Defense in meeting the "maximum protection" mandate established in Public Law 99-145 with respect to the unitary chemical weapons stockpile.

CSEPP is a program grounded in a partnership approach to capability building. This spirit of partnership is evident in numerous cooperative activities and planning efforts among the installations, the communities surrounding the stockpile sites and the States. Among the signs of increased cooperation are monthly or quarterly planning meetings of all affected parties at most sites; increased public awareness through coordinated public affairs activities; an approved accident classification system; dedicated communications linkages between the installations and local governments; and joint training and exercises. We expect new areas of cooperation to emerge as the program continues to develop.

FEMA's goal in the CSEPP is to deliver maximum available resources to the local communities facing the threat should a chemical accident occur. To date, FEMA has been awarded approximately \$187 million from the U.S. Army. Of this amount, about 87%, or \$162 million, has been awarded to the States under our Comprehensive Cooperative Agreement (CCA) system. Each year, an increasing proportion of the funds awarded through the CCAs to the States goes to the counties. Moreover, much of the amount used directly by FEMA is used to conduct studies or engage in other activities designed to benefit the entire CSEPP community. In fact, GAO acknowledges in its Report that funds have been effectively allocated toward program priorities by FEMA.

FEMA is proud of the accomplishments made since 1988 in the preparedness of communities surrounding the stockpile sites. These communities had few capabilities to deal with a chemical agent accident in 1988. Today, they are clearly better prepared in terms of plans, procedures, systems, resources and know-how to protect the lives and property of their citizens. However, our mission is far from complete.

Before I begin my formal remarks, I would like to briefly review both the scope of the Chemical Stockpile Emergency Preparedness Program and FEMA's role in partnership with the Army.

Ten States and 39 counties surrounding the eight U.S. Army chemical weapons stockpile sites participate in CSEPP. Participating States are: Alabama, Arkansas, Colorado, Indiana, Illinois, Kentucky, Maryland, Oregon, Utah and Washington.

Fourteen counties are in Immediate Response Zones (IRZs), the identified, at-risk areas closest to where the chemical agents are stored, generally, within an approximately six to nine

mile radius. Twenty-three counties are in Protective Action Zones (PAZs), beginning at the outer edge of the IRZs and extending to a radius of approximately six to 31 miles. There are two additional counties designated as host counties, which lie beyond the PAZs in Precautionary Zones (Pzs).

FEMA entered into a Memorandum of Understanding with the U.S. Army in 1988 to lend its emergency management expertise and administrative infrastructure to enhance emergency preparedness and response capabilities in these States and counties. That document outlined the cooperative framework, authorities and responsibilities for fulfilling the Congressional mandate on which CSEPP is based.

The Army has used FEMA's expertise in emergency planning, training, exercises and public education. FEMA provides liaison between State and local governments and the eight military Installations; channels financial assistance to State and local governments; and provides technical assistance to State and local governments to develop, implement and evaluate chemical emergency response measures.

Our efforts have been dual focused. First, we have concentrated on establishment of a response infrastructure that can rapidly alert the public, manage the response and communicate with the public, media and emergency responders. Concurrently, we have conducted training and exercising of the community response structure to ensure the protective measures can be implemented in the unlikely event of a chemical agent release. These achievements have been made through a variety of efforts including:

- emergency planning;
- training of personnel;

- development of sophisticated alert and notification, communications and automation systems;
- testing of plans, procedures and equipment through a program of regularly scheduled exercises; and
- public education and information campaigns.

This is an enormously complex program, both from the technological requirements and the criticality of careful preparedness planning. It is a politically sensitive program because it directly affects the lives and welfare of the many thousands of people who live around storage sites. And, it is an important sign of how far we have come during the past 50 years in laying to rest some very terrifying instruments of war in the interests of helping to build a world community based on peace.

The Chemical Stockpile Emergency Preparedness Program is nearly unique in the Federal Government -- a complex program managed by both military and civil agencies in partnership with State and local governments. And, I emphasize the use of the term *partnership* because that is the goal we are striving for in the day-to-day management of this program.

There is not one component of this program that could be removed without crippling it. The expertise of the U.S. Army in chemical disposal is critical to the fundamental mission -- chemical demilitarization. The expertise of the Federal Emergency Management Agency is critical in the development of preparedness plans and processes and training and exercises for off-post issues. And, most importantly, the knowledge and expertise of State and local emergency managers in identifying and meeting the specific needs and requirements of their respective communities is absolutely essential to the success of the program.

I would be very pleased if I could tell you that the development and initial implementation of the Chemical Stockpile Emergency Preparedness Program had gone smoothly, that we are all making progress without interruption, that we have resolved all problems without conflict. I can tell you that we have been working very closely with our partners in the Department of the Army and the State and local governments to make sure that we take positive steps to resolve our differences, streamline our processes and decisionmaking, and work together as a team to make this program operate efficiently, effectively, and safely. Our mission is to save lives and protect property -- we can accomplish that mission when we work **together** towards that common purpose. I would like to cite some of these accomplishments:

- **Training:** A total of 13,596 persons enrolled in CSEPP related and other emergency preparedness and response training programs between June 1991 and July 1994. Several new CSEPP-specific courses are available, including Decontamination, Use of Auto-Injectors, and Personal Protective Equipment. Other materials on Technical Planning and Evaluation and Protective Actions are nearing completion.
- **Emergency Operations Centers (EOC):** Each on-post location and each Immediate Response Zone has a dedicated EOC.
- **Sirens:** Six of the eight sites have sirens installed and operational. At the remaining sites, sirens are pending installation or contract awards.
- **Communications Systems:** All of the eight sites have an operational dedicated non-public switched telephone system linking EOCs to installation, State, and IRZ.

- **Exercise:** Thirty-two Federally Managed and Evaluated CSEPP exercises conducted, ranging from full participation to functional exercises.
- **Planning:** Twelve of a proposed 14 Planning Guidelines have now been issued. Completion of the final guidelines is a priority for FEMA.
- **Medical:** On June 27, 1995, the Centers for Disease Control and Prevention issued its *CDC Recommendations for Civilian Communities Near Weapons Depots: Guidelines for Medical Preparedness*. These guidelines will be incorporated into the medical appendix of the CSEPP Planning Guidance.
- **Legal:** FEMA and the Army jointly held a forum to discuss legal issues.
- **Reentry/Restoration:** This week, the last in a series of symposia designed to familiarize participants with existing resources available to develop and prepare a site-specific reentry/restoration plan is being held.

That common purpose has also been clearly demonstrated by the ways in which FEMA, the Army, and the State and local governments have addressed the problems identified by the General Accounting Office. I would like to address some of the progress that FEMA, the Army, and the State and local emergency managers have made in problem areas that have been identified by the General Accounting Office. FEMA takes its role in the program very seriously and has made a number of improvements in response to GAO concerns for the CSEP program.

- To emphasize financial management reporting, we have, by agreement with the Army, added staff in all FEMA Regional Offices with responsibility for the CSEP program.

- A joint FEMA/Army CSEPP office has been established and recently completed its first 100 days of existence. This joint office, which allows for daily face-to-face resolution of programmatic issues, is expected to continue through 2004, the duration of the program.
- While the General Accounting Office acknowledges that funds have been effectively allocated toward program priorities by FEMA, FEMA is reviewing the State funding allocation and reporting process to develop a more consistent linkage as recommended by the General Accounting Office.
- It is particularly noteworthy that, although many of the States and counties involved in the CSEP program had preparedness programs in place, they were neither oriented towards chemical agent accidents nor programs on the scale or complexity of CSEP. The fact that so many of the State and county organizations have come as far as they have is a credit to the extraordinary efforts that they have devoted to the program.
- FEMA is assisting the Army in developing an *Acquisition Program Baseline (APB)* budget for Fiscal Years 1996 - 2004. The opportunity for input is now available to the States and their subgrantees. This budget baseline development process allows for a current mid-program course adjustment and overall review of program priorities. It is an intensive process that includes "teaming" the public safety jurisdictions (including the depots) so that total site budgets are projected through the life of the

program at each location. We believe that this will expedite future budget decisions and diminish future tracking deficiencies.

- Since September 1994, FEMA has worked with the CSEPP States in a joint effort to reconcile all operation and maintenance (O&M) and procurement accounts for all years prior to Fiscal Year (FY) 1995. These actions will ensure that Comprehensive Cooperative Agreements, the FEMA vehicle by which funds are distributed to the States, are properly administered as to close-out or extension processes preventing the unauthorized carryover of unexpended funds.
- Although GAO noted some instances where funds were not spent by States as approved by FEMA and the Army, authorizing such flexibility in the future could actually aid the States' capability to respond to a chemical incident. On a yearly basis, State requests for funds have exceeded the amount of funds available. Under other FEMA programs, States and FEMA Regional offices have the latitude to use and reallocate funds for eligible work to accomplish legitimate program needs.
- States have continually pressed the Army and FEMA for more flexibility to allow them to manage outside of fiscal restraints that, in effect, leave their hands tied. FEMA believes that the CSEPP funding for States needs to focus on program accomplishments, increased preparedness, improved plans, additional training, targeted

exercises, and enhanced public information, rather than strict accounting-oriented oversight on funds usage.

- For the past year, FEMA has worked to streamline the process by which it conveys funding to the States. Central to that process are program improvements being developed through a National Performance Review 2 initiative. The results of this initiative have been utilized in generating a *Performance Partnership Agreement (PPA)* between FEMA and the States for FEMA's other mitigation and emergency preparedness programs. The PPA process will focus on **program accomplishments** rather than line item-accounting and will provide increased flexibility while, at the same time, improving programmatic accountability.

There is, perhaps, a common theme that encompasses the findings of the General Accounting Office -- priorities are being met without fraud, waste, and abuse but there are some weaknesses in our reporting and/or tracking systems that need correction. I think we have demonstrated a clear commitment to action in correcting those weaknesses.

I do, however, think it is very important that we underscore a critical element of the program that the General Accounting Office addressed -- flexibility in Federal, State, and local implementation of the program.

We are operating today in a climate that clearly calls for the devolution of Federal programs to the State and local levels. Much of this is in direct proportion to the degree that State and local governments believe that Federal programs do not always take into account specific State or local needs, problems, or unique requirements that must be addressed.

The CSEP program is no different. The program encompasses a broad geographical area from Oregon to Maryland. As we have learned in our mitigation, preparedness, and response and recovery programs, tailoring emergency management programs to meet State and local needs is really critical to the success of their implementation. That is why FEMA, in cooperation with the States, has moved away from prescriptive requirements to be adopted nationwide to a more flexible system of *functional* requirements, based on the risks that State or communities face, that must be addressed by *any* State or community in developing an emergency preparedness program.

To underscore this commitment, FEMA Director James L. Witt and Assistant Secretary of the Army Gilbert Decker recently met to discuss ways in which to improve the oversight and management of the program, which will lead to more cost-effective approaches in program delivery.

We do not view *performance accountability* as a form of micromanagement but, instead, the Federal Government working in partnership with State and local governments to address their specific needs and concerns while, at the same time, ensuring that there is appropriate accountability for the use of Federal funds.

I can assure you that FEMA, together with our counterparts in the Army and the State and local governments, is committed to improving the CSEP program to make it cost effective and an example of efficiency in Federal programs. We appreciate the recommendations and suggestions by the General Accounting Office and believe we have taken significant steps to implement them. And, we look forward to working closely with this Subcommittee in its oversight mission to ensure that program costs are reduced while we adhere to the mandate of this program -- maximum protection of lives and property in CSEP communities.

Mr. HUNTER. Thank you, Mr. Kwiatkowski, for your statement. Now you folks have had a chance to reflect on some of the issues that have been raised, and I will go to Mr. Browder first to open up questions.

Mr. PROCIV. Excuse me, Mr. Chairman.

Mr. HUNTER. Do you have a statement you would like to make?

Mr. PROCIV. Yes. What I would like to do, I would like to make a clarification of a statement I made earlier on the German retrograde. What I had quoted was the cost of the operation itself. But in fact my staff has gone back and looked at this.

The actual retrograde took almost 2 to 2½ years in planning. A better number than 17 million would be 57 million for the actual total cost of the transport of those agents to Johnston Island. The time from upload in Germany to transport to JI was really approximately 3 months and not 6 months, as I had stated.

The CHAIRMAN. About 3 months.

Mr. PROCIV. So \$57 million and 3 months would be a much more accurate figure than we had stated earlier.

Mr. HUNTER. OK.

Mr. PROCIV. And in answer to Congressman Browder on your question of percentage, what percentage is bulk, I would like to take that for the record. By the time we respond to you, we hope to have that declassified. Right now, it is still under classification. We can provide you quicker classified numbers if you like. But it is a matter of a week or so before the—we have those numbers declassified.

Mr. BROWDER. That would be fine.

Mr. PROCIV. Thank you, sir.

The following information was received for the record:

As a percent of the total chemical weapons agent tonnage, bulk items account for approximately 67 percent.

Mr. KWIATKOWSKI. I think I have an answer for Congressman Browder as to why the individual had to travel down here on his own funds. I believe there is a congressional prohibition against CAC members using CSEPP money. I think the request came in to use the CSEPP funds for the trip down here and consistent with the congressional prohibition I understood that was not allowed.

Mr. DECKER. Our counsel informed us of the same. We really aren't quite that stingy, but we have been advised by legal counsel we cannot use these funds to subsidize the travel of the individual citizenry.

Mr. HUNTER. We can look at that. OK, go ahead, Glen.

Mr. BROWDER. Thank you, Mr. Chairman. Let me make it clear from the outset that I support the chemical stockpile destruction program. I have worked on it with Mr. Hansen and some others for several years now. Unfortunately, I have stockpile in my district with, as I said, the 78,000 M55's, other agents, other weapons and about 100,000 people immediately in the impact zone. So this is something that I am working on very carefully.

I think we need to get rid of these things, but we need to do it safely. We have got problems, obviously, through the GAO report, other studies, congressional hearings. Whether it is storage or disposal, we have a problem with these things. We can't just say we

are not going to dispose of them because then we have to keep storing them and they are dangerous.

We have management problems, cost, technology issues, schedule issues, transportation with the big issue of public safety covering everything that we talk about. I am going to wear two hats in this: One, as a U.S. Congressman who has been involved with this program from the national and international perspective, but also as a representative of that community in Alabama that is at risk.

One of the charts that was displayed earlier, I don't see it now, had hot topics. No. 5, the final hot topic was "commitment keeping, speaking with one voice." I am going to put on my local hat here and raise a couple of issues.

Mr. Chairman, I know it has been a long day, but this really is a problem for me. In 1990, the U.S. Army applied for a Resource Conservation and Recovery Act hazardous waste permit application for the disposal of the stockpile at the Anniston Army depot. I won't go into all the detail in this. This is just part of it. It is a big, thick document.

It says a hazardous waste management permit to dispose of the lethal chemical agents and munitions is required from the Federal Environmental Protection Agency or States delegated with Resource Conservation and Recovery Act authority. It has a contingency plan listed. It also has statements that says the provisions of this contingency plan will be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents that could threaten human health or the environment.

The specific responsibilities key installation personnel for addressing emergency situations involving uncontrolled chemical agent release are described in the installation chemical incident response and assistance plan. In case of fire or unplanned release to the environment, the contingency plan will be implemented. It doesn't say, as the Army has maintained, that the permit application contemplates certain resources being used. This says the contingency plan will be implemented.

I have gone through this contingency plan submitted in 1990. It is full of documentation about decontamination teams, about tremendous things that we need in these communities, medical assistant team, security control team, rescue squad, public affairs officer. It provides resources, communication personnel. These people can shoot individuals who don't abide by what is needed to evacuate the people and look out for people. They carry lethal arms. I took this seriously.

I especially took this seriously when in 1990 and in 1991 and in 1993 when the U.S. Army recommended closing Fort McClellan, and by the way, the bulk of these resources were located across town at Fort McClellan, AL. This issue is separate from base closure. The decision on Fort McClellan has been made by the commission, and the President is signing that now. This is an issue of trust, keeping commitments, speaking with one voice.

At the time that all these commitments were being made, proposals were being made to close Fort McClellan, AL, and move out every soldier, every piece of equipment at Fort McClellan, AL, prior to one weapon being destroyed. How can you make a commitment

with a contingency plan, and a permit application promising these resources on one hand, and the other hand proposing to move the resources out of this community before one weapon is destroyed?

Folks, the U.S. Army did not even contact the State of Alabama to let them know. Did not let them know that while the right hand was asking for the permit, the left hand was moving to withdraw the resources. As this unfolded in 1991—1990, 1991, 1993—by the way, the base didn't close. In 1995, when the issue came up again, we asked the question: What about these resources that have been committed?

The Army promised the State of Alabama that if the Base Closure Commission recommends the closure of Fort McClellan, then we assure you that the Army will continue to meet all of its responsibilities vis-a-vis chemical demilitarization at Anniston. While assuring us that they were going to meet these resources, these requirements, they were then also assuring the Base Closure Commission that they could save money and they had to specify how these resources were going to be provided. They assured the Base Closure Commission that only minimal essential resources were being provided. They had to calculate that into the cost savings.

I asked the Army, tell me what you are going to provide if you close this base. I asked for a specific definition of the support the Army will provide to the chemical demilitarization operation. This was in 1995, in May. The Army is still trying to determine what, if any, support is required from Fort McClellan.

"Keeping commitments, speaking with one voice." The right hand either doesn't know what the left hand is doing, or the right hand is speaking out of one side of the mouth and the left hand is speaking out of the other side of the mouth—getting the anatomy a little confused here. But the fact is that is the problem. It is a question of trust.

I have been through this a lot over the last 5 years. This decision was made before I came to Congress. But I do take seriously both responsibilities. My responsibility as a U.S. Congressman to help us get rid of this problem and my responsibility to the people in my community, just as every Member up here does. I don't make this statement politically.

General Orton, I trust you. You are a friend. You are a neighbor in our community. I have absolute confidence in your integrity and your commitment to making this program work. However, I am not confident that the U.S. Army and the Department of Defense will do what is right with this program without close oversight from the U.S. Congress.

I will take it a step further. As with other chemical weapons issues, this administration has not prioritized this program adequately and, thus, it has not provided proper leadership and direction. The problems that these people have told us about in the previous panel are only part of the problem.

Mr. Chairman, I will close with this. Congress is going to have to exercise strong oversight as we move along this program to help our country work its way through what is an ugly chemical residue from the Cold War. And that is going to require our attention, the kind of attention that is being devoted today, because we have got to get rid of these weapons.

I don't think we are going to be able to satisfy everybody's problems up here. Some tough decisions are going to have to be made. But we have got to get rid of these weapons. However, we have got to do it the right way and I think Congress is going to have to really provide strong oversight to see that the right thing is done.

Thank you, Mr. Chairman.

Mr. HUNTER. I thank the distinguished gentleman.

Does anybody want the respond here?

I see Mr. Hansen wants to ask a question, too, or make a statement. But does anybody here have any—

General ORTON. We understand the message.

Mr. PROCIV. We understand the message. We sympathize with the Congressman.

Mr. HUNTER. You think you received the message.

We are going to move to Mr. Hansen for his message. The gentleman from Utah is recognized, our host to 43 percent of the Nation's chemicals.

Mr. HANSEN. Well, thank you, Mr. Chairman. I apologize for not being here the entire time.

As you know, I have some responsibilities on the Interior—or National Resources we call it now. We have the Interior Committee appropriation bill in front of us and I had to go over there and do a little floor work, so I missed out on a couple of panels and I apologize for that.

I have great many of the same concerns that my colleague from Alabama has. We have met many times regarding some of the problems. Basically, we look at them somewhat in the same way. I honestly feel that as I look at what you have done as I have watched it over the years, 43 percent of all of the chemical obsolete weapons sitting out in our particular area; if I recall, we are looking at probably to the year 2002 operating 24 hours a day till that would be fully consumed.

A reporter asked me in the hall, why don't you send it to Utah? I don't know if there would be enough time. Just to get rid of our 43 percent is going to take quite a long time to get it out of there. If I understand this thing correctly, it seems to me that Johnston Island has—as I am looking at your figures, 6.6, and I understand they are about half the capacity of Tooele.

If that is the case, then they can handle 22 percent rather than 6.6, just using the simple figures. If they can have half the capacity, they could easily pick up Umatilla and Pueblo without any trouble as I see it here. But I will let wiser minds bring that up, or a bill or two may bring the issue up. But anyway, looking at this thing, I have many of the concerns my friends have.

Tooele Army depot where this is located—Tooele South—also has Tooele North, and Tooele North in 1993 just finished a consolidated maintenance facility. I was out there with the then-Secretary as we dedicated in Halloween of 1992, a \$114 million facility, the most up-to-date, state-of-the-art for refurbishing 2½ ton trucks, jeeps, generators, the whole nine yards.

I still remember Secretary of Defense Cheney saying, this is the one thing that can handle it forever. We finally found a place to do it. In January of 1995 they closed it, which I thought was ironic. And then on the other side of the coin, when we asked the question

specifically, the Army responded and said, don't worry, we will do it in Red River.

Now, did you close Red River in 1995? I don't mean that disrespectfully to anybody. You worry about the right hand and the left hand. Sometimes some of us have the same concern. But I think gentlemen and ladies who have talked to me over the years are people of integrity and trying to do their job.

I look at all the criticism we get every day and guess I can probably understand where they are coming from. Many times it is a new group of folks coming in who just have to pick up the bag of worms as it came to them and they can't really respond to what the past organization did. But as I look at this particular situation, I agree that one of the things we have to do is to be very concerned about this—the public outcry, the safety issues, the things such as that.

I just wanted to clarify a couple of minor things, Mr. Chairman, if I may.

I have been to Johnston Island twice. Being an old pilot myself, I enjoyed sitting up with the pilot in this plane as we flew from Hawaii down to Johnston Island and, as I recall, the pilot said it was 774 miles from takeoff to touchdown.

Is that about right?

General ORTON. Nautical miles; 850 statute; 770, nautical.

Mr. HANSEN. So the people of Hawaii really don't care much what we do at Johnston Island, is that right? I mean, being that far away, I am sure it is of no concern to those folks in that particular area. Well, let me point out that is further than it is from the Yucca Mountain in Nevada to Salt Lake City, which is only 300 and something miles and from other areas. But I won't make a point of that till I have to. But honestly, as I see what you have told us today, Johnston Island is operating under capacity. I mean, if they have 6.6 percent of the stockpile and they are half the size of Tooele, we can get a lot more service out of those folks and that is maybe something we ought to consider.

Mr. HUNTER. That is a question that does come up in this and it is kind of important. What is it—you said that Tooele is going to be going 24 hours a day, basically, and that—and I just roughed out that they can do roughly 7 percent of the chemical of—of the Nation's chemical supply per year. What can—what can Johnston Island do and what capacity are they working at right now? Are they working 24 hours a day?

General ORTON. They are in a modified way.

Mr. HUNTER. Well, so am I, but what are they doing?

General ORTON. They operate 24 hours a day on a campaign. Some of that time includes necessary maintenance stops and that sort of thing. So you are not seeing—if you put a clock and a stop watch on the ends of the line and counted rounds out every—as they came, you wouldn't see it 24 hours a day. You would see it 23 or so on.

Mr. HUNTER. If you had—

General ORTON. The demilitarization is run in a series of campaigns that are set up for the configuration of the munition next in line. That is one of the complexities of this business that I pointed out in the statement earlier on. This wide variety of configura-

tions causes us to fixture the plant differently for different configurations so you can't make an exact cut at half and cut it in half and transfer over. You wouldn't have the same capacity. It is not quite that simple.

Operating in campaigns, Johnston has just, for instance, completed doing the M55 rockets. They now have stopped that line. They are working the sampling procedure that we talked about earlier on stockpile stability. Then they will pick up bombs and that will ramp up as they shake it out and then go up to full 24-hour capacity till that is done and on down the line. So there are stops and steps in between.

Mr. HUNTER. Understanding you have steps and stops and you have to adapt to different munitions, what percent, if you say that Tooele can do roughly 7 percent of the stockpile per year, what percent can Johnston Island do assuming you had the adaptations that were necessary to handle these different munitions?

General ORTON. I don't think I can give you that figure off the top of my head. If somebody has it in back, tell me about it.

Mr. PROCIV. It would be a rough estimate. We would say 1 percent, but I wouldn't want to hang my hat on that.

Mr. HUNTER. It is roughly half the size—

Mr. PROCIV. Again.

Mr. HUNTER [continuing]. Of Tooele.

Mr. PROCIV. It is not a direct correlation.

Mr. HUNTER. I understand that. On the other hand, we are trying to get an idea of whether we can fix a lot of this stuff with a little more MILCON.

Mr. PROCIV. The other problem we have as we mentioned earlier, too, the life of Johnston Island is not as long as Tooele. We are in a very corrosive atmosphere over there. We have system failures that come because of the salt and the sand and we just don't expect that lifetime to be long enough to do much more than the campaigns that we are doing. We have built some buffer in.

Mr. HUNTER. What is that lifetime?

Mr. PROCIV. We are anticipating 2002 as a completion date. If we slip some, I think there is a buffer in there. I just don't have the numbers on that. But one of our big concerns in JI, of course, is the environment we are in. We are in a little bit better environment in Tooele. Also, we have only one liquid agent incinerator at Johnston Island, we have two in Tooele as I remember, right? That also governs the capacity. Having only one, you can only do one agent at a time.

Mr. HUNTER. I didn't mean to interrupt you, Jim.

Mr. HANSEN. No, Mr. Chairman, I appreciate those comments and that kind of fits into what I was driving at. To a certain extent, when we talk about lifetime, we both having been around here for a while, remember the lifetime that they gave the B-52. They have extended it a bit. The T-37, the C-5, about everything you folks have—even the building you live in is way past its written lifetime and we have heard many complaints regarding that funny building across the river that has gone over its time.

So I honestly have a sneaking suspicion that both these things are going to go a heck of a lot longer than what you put it down as the date that you are going to write them off. It seems like there

are ways to keep them going. I do see the problem you have. Some people have said that Tooele being only 30 miles from the Great Salt Lake and the great Salt Lake Desert is very similar to this situation, even though that is really not true because we don't have the corrosion problem in that area that you have.

Anyway, thank you to the panels. Appreciate your straightforward testimony, your integrity, and I hope that we can all work with you, try to resolve what I consider a really sticky problem and one that is not going to get better until someone takes some decisive action.

Thank you, Mr. Chairman.

Mr. PROCIV. Thank you, sir.

Mr. HUNTER. Thank you, Jim.

And incidentally, thanks again to you and to Glen for your impetus in getting this thing put together today. We have had a pretty good mix of Members who are concerned and who have a great deal of expertise like you gentlemen have and so do the communities and the primary agents of our Federal Government that have to make this doggone thing work. We appreciate all of the testimony of all the parties involved today.

Do any members of the panel have any closing remarks you would like to make here?

Mr. DECKER. I would like to make a couple of general remarks, if I may, sir. First, it is always perfunctory to say thanks for having us and I will say that. But it really has been an informative panel. I am reasonably new in this game and working hard with my team. I do stand by my earlier statement.

You can make your own judgment on me another 18 months or so when I move back to the private sector but I do think we have a quality team. I certainly share Mr. Browder's opinion of General Orton. I am the one that recruited him and he came willingly.

Mr. HUNTER. He probably holds that against you, too.

Mr. DECKER. I know. We still are on friendly terms. The team is trying to get our arms around a complex problem, own up to many mistakes that we have made in the past. Some are maybe irretrievable in terms of relationships, I hope not. But it is clear we have a tough management problem, a tough engineering problem, and a tough social problem.

I am kind of a results-oriented guy, spent most of my time in industry and kind of used to dealing with irascible boards and bottom-line goals and getting on with it. That is what I would like to do here. I don't quite have my compass set on how to do that yet, to be honest, but I certainly have appreciated two things I have heard today: One, there clearly is a frustration in the local citizenry and that bothers me. I would like to do what I can personally to help that.

I take from that two points. There is clearly a desire for more community communications involvement so we know what is on their mind and they know what is on our mind. And there is clearly a desire for decision involvement. We are going to sincerely take all the steps we can with our outreach campaign. I will try to make myself available on occasion to go visit with the folks at their forums so we at least know what is going on and we will fix that. We need to search among ourselves.

I have no quarrel with having citizenry involved and that is not the issue in the decision. But when you get down to really trying to understand the trade-offs and what is really safe and what might work, we have no room for error. We cannot put up a pilot or a full plant with any technology that falls on its rear end. We will lose anything we gain.

So this is one of those rare cases where we can't take a venture capital approach and run the entrepreneurial risk. We have to be cautious, in my opinion. So we have got to find a way to communicate, let the community know how we are proceeding with the decision, let them be involved in assessing the impact, but it takes highly skilled technical people.

I certainly do not have a not-invented-here attitude, but I am perplexed personally that we are not ready to go to full-scale development of the alternative technologies, and I am convinced that some of the citizens believe we are and we need to communicate better on that. And we are going to do that.

Mr. HUNTER. OK.

Mr. DECKER. Last, perhaps, we do look strongly to FEMA to be the Government agency on emergency preparedness. That is their mission. I think we had some difficulties. I have gotten to know Mr. Witt. He is sincerely devoted to making sure FEMA holds up its end of the board. We have set up a strong relationship between Dr. Kwiatkowski and Dr. Fallin in my shop.

We hope we are forming up some integrated process teams with the local people to solve the CSEPP problems. So we are trying to build some teamwork. Maybe we can be a little more crisp on some of these areas the next time we meet, but we are certainly going to try to work them.

Mr. HUNTER. Excellent. Anybody else have anything else they want to—

Mr. PROCIV. Just to echo the same sentiments on the community action groups. We are on a direct path to communicate better and to deal with them better. I also hope the committee recognizes that the DAB process that we have collectively installed now gives us a new mechanism to look at a lot more things. I know we waffled on some of your questions, Congressman Hansen, and some of yours, Congressman Browder, but as we get these questions into the DAB, we will get a better consensus of the Department, we will get those answered for you. And we would like to work with you the rest of this year and get some of the relief we need to get the flexibility to look at taking cost out of the program. The DAB is committed to that.

We recognize the cost is the most visible problem that we have and we are committed to working on that and I want to thank you for your time.

Mr. HUNTER. Thank you, Doctor. Thanks to everyone who has testified and our Members who have stayed to the bitter end. We are going to have to do this a little more cost effectively. I think that is one measure that has come through our analysis. We appreciate it.

The hearing is adjourned.

[Whereupon, at 2:52 p.m., the subcommittee was adjourned.]

ABILITY TO CARRY OUT A CHEMICAL DEMILITARIZATION PROGRAM OF
NATIONAL IMPORTANCE AND MEET LOCAL CONCERNS

Mr. Hunter: Are there requirements currently in law that impede the ability of the Department of Defense, the Army, and the Federal Emergency Management Agency to carry out the chemical demilitarization program so as to ensure "maximum safety" for the environment, the general public, and the personnel involved in the destruction of lethal chemical agents and munitions?

Mr. Decker: There are no requirements currently in law that impede our ability to execute the program while providing maximum protection to the public, workers, and to the environment. However, we need to recognize that there is no commonly-accepted definition of "maximum protection," and this can lead to greatly disparate interpretations of requirements. We are committed to working with the various stakeholders in the demilitarization program to ensure that we take all reasonable actions possible during the planning and execution of the stockpile disposal effort. A standard of "reasonable assurance" in lieu of "maximum protection," along with a good definition, could reduce the disparate interpretations and speed up the regulatory processes.

Mr. Hunter: Are there requirements currently in law that impede the ability of the Department of Defense, the Army, and the Federal Emergency Management Agency to carry out the chemical demilitarization program so as to ensure "maximum safety" for the environment, the general public, and the personnel involved in the destruction of lethal chemical agents and munitions?

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ABILITY TO COMPLETE DESTRUCTION OF THE CHEMICAL STOCKPILE BY
DECEMBER 31, 2004

Mr. Hunter: The issue has been raised that the Department will not be able to complete destruction of the chemical munitions stockpile by the congressionally mandated date of December 31, 2004. What are the Department's and the Project Manager's views on this assertion? What will be the impact on the program schedule if the Chemical Weapons Convention enters into effect in 1996? Does meeting the required schedule present a problem from the standpoint of your ability to ensure maximum safety, to reduce the cost of the program, or to consider the use of alternative technologies? Is there a more realistic date?

Mr. Decker: The current demilitarization program is on-track for completion by 2004. The largest risks to successful execution lies in the environmental permitting arena. Changes in the environmental requirements, such as the requirement to complete Health Risk Assessments (HRAs), result in increased time necessary to prepare and obtain approval of the required environmental permits. Entry into effect of the Chemical Weapons Convention in 1996 should not impact the program schedule and would allow a modest schedule contingency to mitigate these environmental permitting risks.

The requirement to complete the program by the end of December 2004 does not pose problems in ensuring maximum safety nor in reducing the cost of the program. However, it does pose challenges to the use of alternative technologies. As both the Army and the National Research Council (NRC) concluded in 1994, substantial development and testing would be required to mature prospective alternative technologies to a point that they could be considered for use in disposing of the stockpile. The 2004 deadline makes it very difficult to develop and utilize an alternative. The NRC recommended all decisions be made from a cumulative risk. That approach would dictate that we should not intentionally delay disposal efforts as such a delay results in increased cumulative risk to the public.

The current program is implementable within the timelines established for the program, provided requested permits from the states are granted within the times estimated in our program schedules. As discussed in the Army's 1994 report to Congress on alternative technologies, if the two bulk-only sites were delayed pending development of an alternative technology, and if pilot testing was performed at our pilot facility (the Chemical Agent Munition Disposal System (CAMDS) in Tooele, Utah), disposal at the bulk-only sites would not be completed until some time in 2008. We should note that these schedules are continually under review as we continue to research neutralization-based alternatives and to track industrial developments.

OPERATIONAL EXPERIENCE AT JOHNSTON ATOLL

Mr. Hunter: Issues have been raised by the GAO and others that the chemical demilitarization facility at Johnston Atoll has not been able to achieve the production rates required to meet the required schedule. What has been your experience at Johnston Island and what results are being achieved now?

Mr. Decker: The trend at Johnston Atoll Chemical Agent Disposal System (JACADS) is very positive. As the Committee probably already knows, we recently completed destruction of the M55 rockets stored on Johnston Island. In the process, we established new daily records on a consistent basis, a new weekly record, and a new monthly record for rockets processed - all while maintaining an excellent safety and environmental posture.

JACADS, as the prototype demilitarization facility, is the first facility to attempt to accomplish certain activities at full-scale in a fully-integrated fashion. We should expect JACADS to continue to have learning curves as the challenges typical for a pioneering facility are encountered, assessed, and eventually overcome. An aggressive lessons-learned program is in-place and is equipping the later generation facilities with a hardware and procedural baseline to lessen this learning curve. This process was anticipated by the independent evaluator of the Operational Verification Testing (OVT) program, the MITRE Corporation, when they concluded that "the implementation of lessons-learned from the OVT combined with additional engineering refinement should enable JACADS and United States plant performance to approach or exceed the OVT throughput rate and design goals." All things considered, JACADS is "serial number 1" of a totally new system. It is performing remarkably well after growing pains in its early operations.

LESSONS LEARNED IN JOHNSTON ATOLL DEMILITARIZATION OPERATIONS

Mr. Hunter: What lessons have been learned during operational verification testing and demilitarization operations at Johnston Atoll and how are these lessons being applied at the Tooele Army Depot chemical demilitarization facility? In continuing demilitarization operations at Johnston Atoll? In the design of demilitarization facilities that are yet to be constructed?

Mr. Decker: Lessons-learned is a key component of the demilitarization program which covers a wide variety of areas from contracting approaches, facility and equipment designs, and operations and maintenance activities. An active lessons-learned program assesses the results being obtained from the Johnston Atoll Chemical Agent Disposal System (JACADS) which, as the prototype facility, is often the birthplace of lessons-learned. Examples of lessons-learned from JACADS which have been incorporated into the Tooele project include the change in contracting to award one contract for both construction and operation; equipment changes such as the changes to the heated discharge conveyor, the installation of a slag removal system for the secondary chamber of the liquid incinerator, and placing a spare demister vessel in the pollution abatement system to increase system availability; and operational/managerial changes such as the use of a critical activities manual to support non-standard operations.

Incorporation of lessons-learned at JACADS is an ongoing process. As more is learned from operational experience, the process is optimized to increase performance. Examples of changes made at the JACADS include the changes made in specific pieces of equipment such as the heated discharge conveyor, the rocket handling system, and the agent quantification systems. As was demonstrated during the rocket campaign, these lessons-learned have resulted in a significant growth in plant productivity.

Future demilitarization facilities will also profit from lessons-learned. As changes are made at either JACADS or Tooele Chemical Agent Disposal Facility (TOCDF), those changes are reviewed to ensure that they are passed forward as a basic element of the design of future plants.

PROGRAM COST GROWTH

Mr. Hunter: The life cycle cost of the chemical demilitarization program has grown from an estimated \$1.7 billion in 1985 to approximately \$11.9 billion today. In its reports the GAO has cited a number of issues that have contributed to cost increases and schedule delays. Are current cost estimates realistic? What is being done to validate them? What are the principal cost drivers? Are there plausible cost reduction and/or cost containment measures that could or should be done to reduce the cost of the program, while still ensuring that total risk is reduced and maximum safety is maintained?

Mr. Decker: The current cost estimate includes revisions based upon our experiences with our facilities at Johnston Atoll Chemical Agent Disposal System (JACADS) and Tooele Chemical Agent Disposal Facility (TOCDF). As such, it represents our best understanding of the requirements identified to date. Managing change is critical to controlling cost in the demilitarization program. Newly identified requirements, particularly new

regulatory requirements and controls, pose a threat to execution of the program within the estimated cost.

As a result of the first Defense Acquisition Board (DAB) review for the Chemical Demilitarization Program, preparation of an independent cost estimate is currently underway. This independent estimate is scheduled to be presented to the DAB this fall. This independent estimate, along with the cost discipline required by the DAB process, will allow for much greater cost control and a much clearer understanding of the root causes for cost challenges so that the appropriate actions can be taken to mitigate future growth.

The overall budget for the program is driven by the "cradle to grave" responsibilities that DOD has as the "owner" of a hazardous substance and the need to ensure that workers, the public, and the environment receive the maximum protection possible during the destruction effort. Therefore, the demilitarization cost estimate is truly life-cycle, and it includes not only the cost of direct demilitarization equipment but also indirect equipment and operational costs (such as for agent monitoring systems, laboratories, and containment systems) to support the destruction effort consistent with this requirement. Over fifty percent of the demilitarization budget

is operations & maintenance funding, which covers the personnel required to secure the required environmental permits, and systemize (test), operate and maintain, and close the eight demilitarization facilities inside the United States and the Johnston Atoll Chemical Agent Disposal System (JACADS).

The life-cycle cost of the program has undergone significant revisions as the program matures and activities are performed for the first time. At this stage, with construction of the first-generation facility in the United States completed, the cost of construction is fairly-well defined. Operational cost estimates have been revised based upon lessons-learned from Johnston Atoll; however, sustained operations at the Tooele facility are necessary to provide added assurance that the modifications made as a result of lessons-learned at JACADS have in fact corrected or improved performance.

As was discussed earlier, a number of cost containment initiatives have been or are in the process of being implemented. The initiatives are all targeted at injecting a greater degree of discipline into the program. Among these efforts are:

- Changes in the scopes of work for systems contractors to combine or eliminate requirements.
- Greater incentivization of production while maintaining a "zero defect" approach with regard to safety and environmental protection.
- Increased use of modeling and simulation to improve schedule and cost predictions and to more accurately evaluate the benefits of proposed changes.
- Value engineering studies to identify cost-reduction measures.
- Enhanced programmatic lessons-learned program to capture operations and maintenance lessons as well as design changes.
- We are also working with both federal and state regulatory agencies to try to achieve a common understanding of the environmental requirements as early as possible to minimize the number of changes which occur. This is the most critical area regarding cost control and one in which the Department of Defense has the least influence.

Mr. Hunter: The Army's plan to construct a separate chemical demilitarization facility at each of eight separate sites in the continental United States would appear to be one of the major drivers in the cost of the chemical demilitarization program. Are there alternatives that could be considered that would avoid at least part of these costs? Is it feasible to consider consolidation of such operations at fewer than eight sites? What would be required? Are there any limits on your ability to consider such alternatives?

Mr. Decker: The Army is examining a number of alternative plant configurations that could feasibly reduce the cost of the demilitarization program. These value engineering studies are currently in-progress. Areas under consideration include reviewing if contaminated charcoal can be processed in one of the other incineration systems required to support demilitarization. If so, it is conceivable that one incinerator type, the dunnage incinerator, could be eliminated. Other options of this type are being considered to ensure that we are delivering safe, environmentally-responsible destruction of the stockpile at the lowest cost.

As you know, Congress currently precludes any study of transportation of the stockpile. Therefore, there are no studies underway which would eliminate the construction of a facility at each stockpile site. However, studies are underway to examine if partial treatment at one site, followed by shipment of the resulting non-chemical agent, hazardous material to a second site, for example, a commercial smelter, for final treatment is viable. It is conceivable that transportation of some materials from some particular sites could reduce the number of operating sites. At this time, that is only educated conjecture because of the prohibition on examining these options.

STOCKPILE STABILITY

Mr. Hunter: Uncertainties regarding the stability of various elements of the chemical weapons stockpile, particularly, the M55 rockets have been cited as one of the reasons for proceeding with the demilitarization program. The Army has certified that the chemical weapons are safe for continued storage for the near and mid term and uncertain for the long time; however, the GAO has questioned the Army's assessment. How serious is the stability problem and what can be expected as the stockpile ages?

Mr. Decker: Our most hazardous item is the M55 rocket. It contains a fuze, burster, chemical warhead, and propellant rocket motor in a shipping and firing tube. Less than 0.1 percent of the stockpile has developed small leaks over the years. M55 rockets account for over seventy percent of the leaking munitions. Leakers are detected by weekly monitoring of storage igloos and random monitoring of individual rocket shipping and firing tubes. High-technology, low-level monitors allow us to detect, isolate, and seal leaking munitions before they become a hazard to workers or the public. Leaking munitions are sealed in air-tight, over-pack containers and stored in separate igloos.

The GAO has postulated that propellant grains in the rockets may become serious autoignition hazards while in storage. They determined that the Army didn't have sufficient data to determine if master propellant samples used to analyze stability were representative of field storage conditions and that

propellant contaminated by leaking agent may experience accelerated depletion of stabilizer content. The Army agreed that we needed more data to analyze these potential problems.

Mr. Hunter: What is the Army doing to verify that the stability problem actually exists?

Mr. Decker: First, we are working on two actions to improve the reliability of our master propellant sampling and analysis program that looks at stabilizer content. These actions are scheduled to be completed during the fall of 1996.

- Revised Master Sample Plan. A comprehensive analysis and statistical evaluation of all previous sampling data will be

conducted. Subsequently, a revised sampling plan will be developed that fills any identified voids in the database.

- Standardized Safe Storage Prediction Models. Studies and laboratory tests of propellant stabilizer content have been initiated at Army facilities to determine which method of predicting the safe storage life of the M55 rocket is the most accurate. This study was precipitated when an expert Army panel developed a methodology that varied significantly from that espoused by the propellant manufacturer. The results of this study will provide a standardized approach for predicting the safe storage life for M55 rockets.

The Army has also begun a comprehensive study and an analytical evaluation of the effects of GB and VX on propellants and explosives used in our chemical munitions.

- Contaminated Propellant. Laboratory testing of M55 rocket propellant soaked in nerve agents GB and VX is underway. These test will determine if contaminated propellant is subject to accelerated loss of stabilizer. Results from these tests are expected in December 1995.

- Contaminated Explosives. Studies to determine the effects of GB and VX on the fuze and burster in the M55 rocket are being finalized now. To date, we have no indication of any stability problem if agent were to contaminate the fuze or burster. This study should also be completed by December 1995.

- Leaker Samples. Propellant samples from leaking overpacked M55 rockets stored on Johnston Atoll were taken just prior to the rockets being destroyed in the demilitarization facility. The samples will be tested at the Army's laboratories to determine if the propellant stabilizer content from these leaking rockets has been significantly depleted. These samples will also improve our data on the impact of higher temperatures and humidity on stability of propellant. This study is scheduled to be completed in October 1995.

Mr. Hunter: Are there measures that can be taken to reduce the potential consequences of the problem, such as separating the explosive in the munition from the agent?

Mr. Decker: Yes. Propellant is being removed from 105 millimeter GB and mustard cartridges and 4.2 inch mortar rounds that contain mustard. This reconfiguration action reduces

potential fire hazards and makes the demilitarization process more efficient. These munitions are currently being reconfigured at Tooele and Anniston Army Depots. Work at Pueblo Depot Activity is scheduled to start in fiscal year 97.

M55 rockets are a problem. It isn't easy to remove the propellant from the M55 rockets without using the demilitarization facilities that were designed to safely and efficiently separate and destroy rocket components. If demilitarization facilities are delayed and propellant stability tests show that we have a problem, the Army is currently developing a contingency action plan that defines the facilities, procedures, timeframes, and triggers needed to remove propellant grains from problem rockets. This plan is designed to deal with only limited numbers of rockets and requires significant worker involvement and exposure. The plan uses stabilizer content as the primary trigger. We see no viable options for removing propellant from all M55 rockets prior to demilitarization. The contingency plan is scheduled to be completed during 1996.

Mr. Hunter: Are there similar problems with respect to chemical agents that are in bulk storage?

Mr. Decker: There have been some problems with agents GB and mustard leaking from the plugs and valves in one-ton containers. Leaks from GB containers were attributed to corrosion of threaded brass fittings. To correct this problem, the Army is installing new steel plugs and valves on all GB ton containers. The changeout should be completed by December 1995.

There have also been a few instances of pressure buildup in mustard ton containers that caused some leakage. We have started a program to pressure test mustard containers to determine the extent of this problem. Pending completion of this study, we have increased our inspection interval of mustard containers from quarterly to weekly to provide a better capability of detecting and fixing any container leaks before they become a hazard.

FEASIBILITY OF ALTERNATIVE TECHNOLOGIES

Mr. Hunter: The Army is proceeding with a research and development program on the use of neutralization and neutralization followed by biodegradation as alternative technologies to incineration of the chemical stockpile and expects to present the results of this program to the Defense Acquisition Board by mid-1996. Will the Army be able to achieve meaningful results that will provide the basis for an informed decision next year? If the research and development program is successful and the technologies appear feasible, how long will it take to prove out the selected technology for use on a scale required by the program?

Mr. Decker: The Army initiated an aggressive Research, Development, Test & Evaluation (RDT&E) program to investigate, develop, and support testing of two technologies based on standalone chemical neutralization or neutralization followed by biodegradation for destruction of mustard at Aberdeen Proving Ground, Maryland and agent VX at the Newport Chemical Activity, Indiana. The purpose of the program is to determine whether either alternative technology warrants pursuing a pilot-scale facility; the decision to proceed to pilot testing will be made by the Defense Acquisition Board (DAB). The neutralization-based RDT&E program is still on schedule to meet the DAB review date. A one hundred percent design for the pilot facility as well as the permit application will be available at the DAB.

The Army has also elected to survey industry for alternative technologies besides neutralization and neutralization biodegradation through an announcement in the Commerce Business Daily in August 1995. The Army will select up to a maximum of three technologies for review by the National Research Council

(NRC). In order to allow the firms to respond to the Army and the NRC to review the technologies, the DAB is now scheduled for October 1996.

The Army's 1994 Report to Congress assessed the time required to complete testing and to implement stockpile destruction at the two bulk-only sites using alternative technologies. This assessment indicated that stockpile

destruction could not be completed until 2007/2008. However, the Army is currently reassessing alternative technology timelines to determine if the schedule could be shortened by pilot testing at the two bulk-only sites, as opposed to pilot testing at the Army's existing pilot facility, the Chemical Agent Munition Disposal System (CAMDS). This assessment will be completed within the next several months.

STATUS OF ENVIRONMENTAL PERMITS FOR TOOELE AND ANNISTON ARMY DEPOT CHEMICAL DEMILITARIZATION FACILITIES

Mr. Hunter: What is the status of the environmental permits required to permit demilitarization operations to begin at Tooele Army depot later this year? Are there any additional measures that must be taken to meet the requirements of the federal regulations of the State of Utah? What is being done to meet the requirements for emergency response and support of the chemical storage and demilitarization program?

Mr. Decker: The Title V Operating Permit Application for Tooele Army Depot-South Area which addresses all activities governed by the Clean Air Act in the South Area, except the open burn/open detonation of conventional munitions, will be submitted to the State of Utah on September 11, 1995. (Note: The open burn/open detonation of conventional munitions will be included in the Title V Operation Permit Application for the North Area.) All applications are due to the State by October 10, 1995. This date is driven by when the State received authorization to administer the program by the U.S. Environmental Protection Agency. Completion of this requirement will not impact the schedule.

The Tooele Chemical Agent Disposal Facility (TOCDF) Resource Conservation and Recovery Act (RCRA) Permit must be modified to reflect actual operational conditions. There are numerous major and minor permit modifications that are being prepared, submitted, and approved as well as numerous permit conditions that must be met and approved by the State of Utah before both surrogate trial burns and agent operations can commence. Our schedule allows for the completion of this work and assumes that the State of Utah can also meet our schedule. Progress is satisfactory. All measures are being taken to satisfy the federal and state regulations to obtain the necessary permits to allow commencement of operations at the Tooele facility in the first quarter of fiscal year 1996. Our commitment is to insure that we are in total and complete compliance with all environmental regulatory requirements before commencing with agent operations.

A Toxic Substances Control Act (TSCA) Permit has been issued by the Environmental Protection Agency to allow the Tooele Chemical Agent Disposal Facility (TOCDF) to perform a research and development test burn. The purpose of this test burn is to demonstrate the effectiveness of the deactivation furnace to destroy polychlorinated biphenyls which are contained in the M-55 rocket shipping and firing tubes. Our schedule includes this activity.

The State of Utah is conducting a Recovery Conservation & Recovery Act (RCRA)-required Environmental Health Risk Assessment for the Tooele Army Depot South Area. Mission operations in the South Area must pass the Environmental Health Risk Assessment before the TOCDF can begin agent operations. This assessment is expected to be completed by November 1995.

The liquid incinerator surrogate trial burn has been conducted and the report is being finalized which will be submitted to the State of Utah for approval. Preparations are underway to conduct the deactivation furnace system surrogate trial burn, which will also require a report that must be approved by the State of Utah.

Facility construction certifications of the hazardous waste management units in the facility are required by the RCRA permit. The certifications must be completed and approved before both surrogate and agent operations can commence.

The Chemical Stockpile Emergency Preparedness Program (CSEPP) core office is ensuring integration of all national, state, county, installation, and TOCDF emergency response plans. The emergency response posture has progressed significantly. As part of this effort, all plans are being reviewed for seamless integration, on-post exercises have been conducted to test the accuracy and consistency of Tooele Army Depot (TEAD) response plans and TOCDF plans, and refinements made to plans as a result of these exercises and reviews. Tooele and nearby counties have upgraded their response centers and procured new communications and mobile decontamination equipment. Each year, a full exercise is conducted that involves on post and off post response activities. Training for civilian responders using personal protective equipment, recently approved by the Occupational Safety and Health Administration, will be completed in August 1995. Funding issues concerning the Tooele Valley Regional Medical Center have been satisfactorily resolved and discussions are ongoing to address funding for a requested twenty-person civilian response team. Additionally, the Federal Emergency Management Information System (FEMIS) has been provided to Tooele County and the State of Utah. This system is in its final stages of on-site user testing.

Mr. Hunter: What is the status of environmental permits required to permit construction of the Anniston Army Depot demilitarization facility early next year? What additional measures must be taken to meet the requirements of the federal regulations and of the State of Alabama?

Mr. Decker: The Alabama Department of Environmental Management (ADEM) and the U.S. Environmental Protection Agency Chemical Demilitarization Working Group are currently reviewing the Resource Conservation and Recovery Act (RCRA) and air permit applications for the Anniston Chemical Agent Disposal Facility (ANCDF). The regulators have also begun drafting sections of the RCRA and Air permits. ADEM is finalizing the draft of the RCRA permit. ADEM plans to allow the Army to conduct a preliminary review of the interim draft permit sometime in September. ADEM is expected to have a draft permit for public review and comment in the fall.

As directed by ADEM, we are currently updating the ANCDF Environmental Health Risk Assessment (EHRA). When ADEM forwards their official comments to the two permit applications and the EHRA, the Army must provide a formal response and change pages. In the interim, the Army continues to informally resolve ADEM's concerns and queries as they arise. Once the official comments

are formally resolved, ADEM will release the draft permits for public review and comment (a minimum of forty-five days) and conduct a public hearing. ADEM will respond to all comments received, finalize the permits, and issue the permits. We must also recognize that if comments and/or changes to the draft permits warrants it, the Alabama State regulations allow ADEM to call for a second public comment period and hearing prior to issuance of the permits.

Mr. Hunter: The Army's plan for chemical demilitarization operations at Anniston Army Depot relied on Fort McClellan for much of the required emergency response and other support for the operations at the Depot. With the expected approval of recommendation of the Base Realignment and Closure Commission to close Fort McClellan, what measures have and are being taken to ensure that the required support will be available? When can we expect that plans for providing the required support will have been completed and the required support is in place?

Mr. Decker: The Resource Conservation and Recovery Act (RCRA) permit application submitted by the Program Manager for Chemical Demilitarization to the State of Alabama contains a section that outlines emergency planning for the proposed Anniston Chemical Agent Disposal Facility. Included as an attachment to this section of the permit application is the Anniston Army Depot's (ANAD) Installation Chemical Accident/Incident Response and Assistance (CAIRA) Plan. In addition to the resources provided by ANAD, some Fort McClellan resources are identified in the CAIRA plan. Following a decision to close Fort McClellan, a period of transition will follow and these resources will be replaced. The Army is currently developing an alternate support plan to ensure that adequate resources are available and support is uninterrupted throughout the transition period. This plan will be updated as closure plans are developed. Attached is a chart that outlines the resources currently available to ANAD, resources currently provided by Fort McClellan, and the Army's plan if Fort McClellan closes. ANAD will use the alternate support plan as a guideline to continuously update its CAIRA Plan as Fort McClellan resources are phased out.

The following table shows the current and replacement resources for ANAD emergency response support.

QUESTION FOR THE RECORD
HOUSE NATIONAL SECURITY COMMITTEE
MILITARY PROCUREMENT SUBCOMMITTEE
CHEMICAL DEMILITARIZATION
13 JULY 1995

QUESTION NUMBER 11

CHEMICAL EMERGENCY RESPONSE SUPPORT TRANSITION MATRIX
(AS OF AUG 7, 1995)

FUNCTION	FT MCCLELLAN RESOURCES	REPLACEMENT RESOURCES	ESTIMATED DATE	COMMENT
EXPLOSIVE ORDNANCE DISPOSAL SUPPORT	142D EXPLOSIVE ORDNANCE DISPOSAL	142D EXPLOSIVE ORDNANCE DISPOSAL	NOV 98	MOVE TO ANNISTON ARMY DEPOT (ANAD)
DEAR CLINIC CONTROL	NOBLE ARMY COMMUNITY HOSPITAL	MARTIN ARMY COMMUNITY HOSPITAL	OCT 96	MARTIN ARMY COMMUNITY HOSPITAL AT FORT BENNING ASSUMES MISSION
MEDICAL AUGMENTATION TEAM	4 DOCTORS 3 NURSES 8 EMERGENCY MEDICAL SYSTEM PERSONNEL	4 DOCTORS 3 NURSES 8 EMERGENCY MEDICAL SYSTEM PERSONNEL	OCT 96	MARTIN ARMY COMMUNITY HOSPITAL AT FORT BENNING ASSUMES MISSION
AMBULANCE SUPPORT	2 AMBULANCES 4 EMERGENCY MEDICAL SYSTEM PERSONNEL	2 AMBULANCES 4 EMERGENCY MEDICAL SYSTEM PERSONNEL	SEP 99	ARMY MATERIEL COMMAND/MEDICAL COMMAND/CHEMICAL DEMILITARIZATION WILL REPLACE SUPPORT
PUBLIC AFFAIRS	1 PUBLIC AFFAIRS OFFICE	1 PUBLIC AFFAIRS OFFICE	JUN 98	REDSTONE ARSENAL SUPPORT
JOINT INFORMATION CENTER	BUILDING 2203	BUILDING 2203	JUN 98	SUPPORT AGREEMENT - ALABAMA NATIONAL GUARD; FORT MCCLELLAN NATIONAL GUARD AREA
DECONTAMINATION	2 DECONTAMINATION TRUCKS 10 PERSONS	2 DECONTAMINATION TRUCKS 10 PERSONS	JUN 97	2 ADDITIONAL ANAD UNITS ADDITIONAL ANAD TEAMS
SECURITY AUGMENTATION	20 SOLDIERS	20 SOLDIERS	JUN 98	OFF-DUTY ANAD GUARDS SUPPORT AGREEMENT-ALABAMA NATIONAL GUARD
ALTERNATE EMERGENCY OPERATIONS CENTER	FORT EMERGENCY OPERATIONS CENTER	ALABAMA NATIONAL GUARD EMERGENCY OPERATIONS CENTER	JUN 98	SUPPORT AGREEMENT ALABAMA NATIONAL GUARD; FORT MCCLELLAN NATIONAL GUARD AREA
TRAFFIC CONTROL FORT TO DEPOT	40 SOLDIERS	NONE	JUN 97	NO REQUIREMENT AFTER FORT ASSETS REPLACED
COMMUNICATIONS SUPPORT	20 SOLDIERS MILITARY RADIOS	NONE	JUN 96	CSEPP COMMUNICATIONS EQUIPMENT REPLACES CAPABILITY

STATUS OF ENVIRONMENTAL PERMITS FOR TOOELE AND ANNISTON ARMY
DEPOT CHEMICAL DEMILITARIZATION FACILITIES

Mr. Hunter: Issues have been raised with respect to the possible early involvement of potential baseline incinerator facility systems contractors as an integral part of the Army's team in the permitting process. Potential systems contractors could be involved in the permit hearings with the Army so that the state and local community would have the opportunity to discuss and understand a particular contractor approach to operation of the facility and other relevant issues. Has the Army given any consideration to such an approach and what contractual arrangement would be required with potential systems contractors? What are the advantages and disadvantages of such an approach?

Mr. Decker: To date, the Army has not considered directly involving potential systems contractors in the permitting process. The Federal Acquisition Regulations (FAR) Subpart 3.104 requires that the identity of potential contractors not be disclosed to other competing contractors or to the general public. Further, there is concern that different contractors might offer different approaches, causing uncertainty among the regulators.

Thus, the Army believes that there is a disadvantage in involving potential contractors in the permitting process prior to contract award. For example, having contractors present proposed approaches prior to award may color regulators perception of the contractors capabilities, and may lead to a situation in which regulators could be offering opinions on how the Army should conduct its evaluations.

However, after contractor award, there are significant advantages in making the systems contractor part of the army team that will deal with regulators on all environmental issues. The Army plans to incorporate the systems contractor in this team.

CHEMICAL STOCKPILE EMERGENCY PREPAREDNESS PROGRAM (CSEPP)
MANAGEMENT

Mr. Hunter: The chemical stockpile emergency preparedness program is one of the keys to ensuring the safety of the public in the communities adjacent to chemical weapons storage sites. Ensuring the safety of the people in the local community is also key to the permitting process for construction of the chemical demilitarization facilities and conducting demilitarization operations. Repeated complaints have been made by local communities about the coordination and execution of the program. Repeated studies by the GAO has cited the lack of preparedness of local communities to respond to the effects of a chemical accident or incident on their storage sites and overall management weaknesses in the planning and execution of the program by the Department of the Army and by the Federal Emergency Management Agency (FEMA). What are the Army and the FEMA doing to correct these deficiencies and to ensure that local communities are prepared to respond to a chemical emergency? What measures are being taken to improve communications with the people in the local community and to ensure an understanding of both the CSEPP and the requirements of the demilitarization program?

Mr. Decker: The Army agrees that in the past, the national CSEPP management was fragmented. The CSEPP core team at Aberdeen Proving Ground (APG), Maryland was officially established on

October 1, 1994. The collocated team consists of Army personnel and FEMA personnel. This team includes personnel with functional responsibilities such as automation, exercises, training, public affairs, and planning, as well as site teams which are composed of one Army person and one FEMA person. The site teams are responsible for all programmatic affairs at the site which are defined as on post plus off post. The functional responsibilities of the core team are focused on as much standardization across sites as possible, integration nationally, review and streamlining of processes, where possible, and overall refinement of the program direction and execution. We are pleased to report that the core team approach is working effectively in solving many of the state and local issues that have arisen since the

inception of this team. The core team is preparing a program baseline with input from all installation, FEMA, state, and county partners which will form the basis for the program as well as tie together the performance, schedule, and cost. This product will define the "way ahead" for CSEPP. As an aside, we are pleased to report that each site can respond to a chemical emergency as is evidenced by existing plans, equipment purchased and made operational, additional personnel, as well as the annual exercise which is jointly performed at each site.

The CSEPP core site team members act as advocates of the sites and conduits for information exchange. They are an additional pipeline for information flow as well as an immeasurable source for information. The core team has a public affairs specialist who is familiar with the issues of the sites and is responsible for integrating the CSEPP with the demilitarization portion. Additionally, the CSEPP public information program will be integrated into the Chemical Demilitarization Program public outreach office store front public affairs office to provide CSEPP specific information when required and insure that CSEPP materials are available.

PLASMA ARC TECHNOLOGY

Mr. Tanner: I understand that in the report language of the Fiscal Year 1996 National Defense Authorization bill (p. 135 *Demilitarization of conventional munitions and explosives*) the Committee discusses the need to study various technologies which include plasma arc technology. Could you comment on whether or not plasma arc technology could be useful in the demilitarization of some of our chemical stockpile?

MG Orton: Plasma-based technologies represent one type of high-temperature alternative technology that is included in the Army's program of tracking industrial developments. Plasma-based technologies are utilized for the treatment of hazardous waste. In addition, Germany is installing a plasma torch in a rotating refractory-lined furnace to treat recovered chemical weapons.

It should be noted that plasma technologies are high-temperature processes subject to many of the concerns expressed regarding the baseline incineration process (metals emissions, dioxin/furan emissions); however, as electric power is utilized to maintain furnace temperature, there is a smaller quantity of stack gases emitted as compared with a baseline incinerator. The Army is currently pursuing low-temperature and low-pressure alternatives that eliminate these types of concerns. The Army will continue to monitor developments with regard to the potential applicability of plasma technologies to ensure that any technological advancements are taken into consideration.

Ms. DeLauro: Major General Orton, there is language in the National Defense Authorization Act for Fiscal Year 1996 that discusses potential environmentally compliant technologies for conventional demilitarization and disposal of conventional munitions and explosives. One of the mentioned technologies that has been brought to my attention is plasma arc. Could you look into whether or not this technology could also apply to chemical demilitarization?

MG Orton: Plasma-based technologies represent one type of high-temperature alternative technology that is included in the Army's program of tracking industrial developments. Plasma-based technologies are utilized for the treatment of hazardous waste. In addition, Germany is installing a plasma torch in a rotating refractory-lined furnace to treat recovered chemical weapons.

It should be noted that plasma technologies are high-temperature processes subject to many of the concerns expressed regarding the baseline incineration process (metals emissions, dioxin/furan emissions); however, as electric power is utilized to maintain furnace temperature, there is a smaller quantity of stack gases emitted as compared with a baseline incinerator. The Army is currently pursuing low-temperature and low-pressure alternatives that eliminate these types of concerns. The Army will continue to monitor developments with regard to the potential applicability of plasma technologies to ensure that any technological advancements are taken into consideration.



Federal Emergency Management Agency

Washington, D.C. 20472

SEP 8 1995

PT-RS

The Honorable Duncan Hunter
Chairman, Military Procurement Subcommittee
Committee on National Security
U.S. House of Representatives
Washington, D.C. 20515

Dear Representative Hunter:

Thank you for the opportunity to respond to the following questions resulting from the July 13, 1995, hearing before the Military Procurement Subcommittee. I sincerely appreciate the time and interest you have shown in the Chemical Stockpile Emergency Preparedness Program (CSEPP) as it relates to the Army's Chemical Demilitarization Program. The two questions and the Federal Emergency Management Agency's (FEMA) responses follow.

Question 1 -- What are the Army and the FEMA doing to correct these deficiencies [poor communication with local communities and their lack of preparedness to respond to a chemical emergency] and to ensure that local communities are prepared to respond to a chemical emergency?

a. Preparedness:

FEMA's goal in CSEPP is to deliver maximum available resources to the States and counties facing a potential threat should a chemical accident occur. To date, FEMA has been allocated approximately \$187 million from the U.S. Army. Of this amount, about 87%, or \$162 million, has been awarded to the States through FEMA's Comprehensive Cooperative Agreement (CCA) process. Each year, an increasing proportion of the funds awarded to the States go to the counties.

FEMA recognizes that the local communities will be the first line of defense in any chemical emergency and must, therefore, be prepared to respond quickly, effectively, and efficiently. In addition, these communities will be most directly affected by the physical and economic hardships which would undoubtedly follow an off-post chemical agent release. Thus, FEMA continually strives to assure that the local CSEPP communities receive the technical assistance they need, as well as sufficient financial resources to adequately respond to an off-post chemical incident.

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CSEPP funds, however, originate with a Department of the Army appropriation. These funds are then transferred to FEMA for distribution to the States, as grantees under FEMA's CCA and the new Cooperative Agreement (CA) process. The States then work with the CSEPP counties (the subgrantees) to negotiate the pass-through of these funds.

As the direct grantee for the CSEPP funds from FEMA, it is ultimately the States' responsibilities to assure that their citizens are adequately prepared in the event of any emergency, including a chemical emergency. While FEMA works with its CSEPP States to assure that funds are spent on local preparedness, as a matter of policy, FEMA does not interfere with internal State negotiations regarding the funding of local CSEPP requests. FEMA's policy of working directly with the States underscores a critical element of the Program -- flexibility in its Federal, State, and local implementation.

This is not to say, however, that FEMA plays no role in assuring that local CSEPP communities are prepared for a chemical emergency. In reality, as one of two Federal partners managing the Program and the party which awards CSEPP funds to the States, FEMA is in a unique position to influence the expenditure of CSEPP funds to assure they enhance emergency response capabilities. In fact, in line with the General Accounting Office's (GAO) recommendations, FEMA has on numerous occasions persuaded States to reprioritize funding requests to more rapidly meet programmatic goals and objectives at the local level.

FEMA is proud of the accomplishments made since 1988 in enhancing the preparedness of communities surrounding the stockpile sites. These communities had few capabilities to deal with a chemical agent accident in 1988. Today, they are clearly better prepared in terms of plans, procedures, systems, resources and know-how to protect the lives and property of their citizens. However, our mission is not yet complete.

The CSEPP Benchmarks:

In May 1993, the Army and FEMA jointly established National CSEPP benchmarks. These benchmarks serve as a basis for funding decisions and help establish program priorities. They also serve as a basis for assessing the capability of each CSEPP community to respond to a chemical emergency.

The benchmarks call for the following operational capabilities:

- Functioning Alert and Notification (A&N) system for the Installations, Immediate Response Zones (IRZ) and limited areas of the Protective Action Zone (PAZ);
- Functioning Emergency Operating Center (EOC) for each Installation and IRZ county;

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- Functioning communications system for the IRZ and Installation and between the EOCs, Military Installation, Joint Information Center (JIC) and the State; and
- Functioning automated data processing system connecting critical Installation facilities, on-post and off-post EOCs, JIC and the State EOC for processing protective action recommendations for the public.

In addition, the benchmarks call for the following functional capabilities:

- Training programs, consistent with the FEMA State Training Plan and Army certification requirements, that maintain proficiency of emergency services providers, responders and CSEPP staff, as defined and measured by the CSEPP standards;
- An exercise program consistent with approved exercise policy;
- A community involvement program for public information and education; and
- Coordinated plans in conformance with established CSEPP Guidance for each Installation, State and IRZ and PAZ county, updated as CSEPP guidelines are revised or the jurisdiction's circumstances change.

Enclosed are detailed site-by-site characterizations of the status of each community in meeting the CSEPP benchmarks. While not all CSEPP equipment is in place, the enclosures clearly demonstrate that the local CSEPP communities' capabilities to deal with a chemical emergency have improved dramatically since the Program's inception.

Current Chemical Emergency Response Capability:

All of the CSEPP States and local off-post jurisdictions are subject to State laws and portions of Federal public safety laws which require an existing, legally-constituted emergency management organization and a necessary level of facilities and equipment to carry out these legislated responsibilities. CSEPP funds have built on these capabilities providing the capability enhancement necessary to address the specific requirements of chemical emergencies.

Between the independent, non-CSEPP, emergency management responsibilities currently required of the States, and the CSEPP-specific funding received to date, it is estimated that the CSEPP States and local jurisdictions are currently capable of responding to a chemical accident should one occur. Current and future CSEPP expenditures are being committed to improve the technology with which to respond, thereby increasing the efficiency of the response.

Areas where technology is being upgraded include:

- Personal Protective Equipment (PPE);
- Automated Data Processing equipment;
- Decontamination equipment;
- Communications equipment.

Many of these upgrades have already been funded or are scheduled for funding in Fiscal Year 1996. Thus, many of the capability gaps alluded to by the local community during the July 13, 1995, hearing will soon be filled. Since the hearing, \$12.6 million has been allocated to the States in the above four areas.

b. Communication:

CSEPP consists of many jurisdictions with diverse, and at times conflicting, needs. FEMA recognizes that the Program can only run at peak efficiency when cooperation, coordination, and communication are an integral part of its daily operations at all levels.

That is why, in my testimony before your Subcommittee, I emphasized the **partnership** established between the participants of this unique program -- a program that is managed by both military and civilian agencies in coordination with State and local governments. Each member of this partnership has worked very hard to resolve differences, streamline processes and decision making, and work together as a team.

The Communications Process:

As with the CA process, it is FEMA policy to deal with the CSEPP States and allow the States to work with their local communities. FEMA takes this approach for two reasons. First, as a Federal Agency, FEMA does not believe that it is appropriate to interfere in internal State/local practices. Second, as stated above, the States are the grantees under the CA. As grantees, they are the responsible governmental unit with which FEMA interacts. In this program, FEMA does not deal directly with the local subgrantees.

However, communication and coordination are important to FEMA and goals of the CSEPP. Therefore, in order to assure consistent and open communication, while acting within the confines of FEMA's established protocols, the CSEPP partners have agreed to the following communications protocol sequence: Army to FEMA Headquarters; FEMA Headquarters to FEMA Regional Offices; FEMA Regional Offices to the CSEPP States; and States to the local governments.

Thus, while FEMA strives to assure that all CSEPP partners are kept up to date on programmatic progress, we would violate established protocol by dealing directly with the

localities. This, however, is not to say that FEMA is not actively working to assure that the communication protocol keeps all members of the CSEPP community fully informed in a timely fashion.

Question 2 -- What measures are being taken to improve communications with the people in the local community and to ensure an understanding of both the CSEPP and the requirements of the demilitarization program?

The most important measures taken to improve communications is the day-to-day efforts of the members of the site teams and the FEMA Regional Offices. As the Program's communications vanguard, they work together to ensure: 1) that the public is aware of the basics of the Program, while monitoring community feedback for information "gaps" that need attention; 2) that State and local officials are kept abreast of policy or programmatic changes, especially those that are likely to generate questions from the local media; and 3) that, in general, the lines of communication are open and the community is in the information loop. In this way, the site teams and the Regional Offices function both as "listening posts" for the Program and as a feedback channel for the community.

Federal level initiatives to improve CSEPP communications have also focused on building the emergency communications capability at the State and local level. Through exercises, courses, and conferences, they have improved their ability to communicate with the public in the event of a chemical agent accident. In fact, half of the sites have undergone site-specific JIC instruction, resulting in significantly better communications performance in CSEPP exercises.

In addition, FEMA's partners at the State and local level are reinforcing and expanding upon CSEPP's day-to-day communications through a host of initiatives. For example:

- Maryland is distributing an "Emergency Preparedness" calendar containing CSEPP-specific information including the Aberdeen Community CSEPP map, evacuation and in-place sheltering information, public alerting information and an overall explanation of the program. The calendar is being sent to households and businesses in the CSEPP emergency planning zones.
- Calhoun and Talladega Counties in Alabama are working with local radio stations and the Alabama Emergency Management Agency on pre-scripted messages for the Emergency Broadcast System. In addition, the counties are providing periodic briefings to schools, churches, and civic groups on the status of the alert and notification system, as well as the system's objectives and procedures.

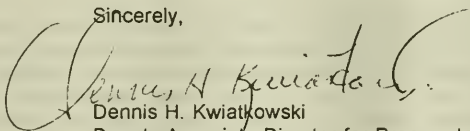
- 6 -

- The making of a video about how the siren system will work in Arkansas has become a useful focal point for communications with the CSEPP community. Because the Arkansas Emergency Management Agency is using a "networking" approach to reach out to as many civic/governmental organizations in the community as possible to secure their perspective on the video's message(s), the video -- still in production -- is providing a unique venue to communicate with key community leaders and hear their concerns.
- In Indiana, a brochure entitled *Emergency Instructions for Residents Surrounding the Newport Chemical Activity* was mailed to all households in the IRZ. Significantly, it included a tear-out card for residents to complete and return if they needed special assistance in the event of an accident or emergency at the Newport Chemical Activity. In addition, several public meetings have been held in Indiana's IRZ counties to inform the public about the siren system.
- Protective action recommendations in the event of an accident are annually disseminated to households in the Kentucky IRZ/PAZ. According to the Kentucky Office of Disaster and Emergency Services, the distribution medium, a calendar/emergency information brochure, has been highly effective.
- In Washington State, public education brochures are distributed at county-wide activities, such as the Benton County Fair, mailed to IRZ residents, and distributed at CSEPP public meetings. In addition, the brochures are distributed to boaters in the Marine Safety Zone (MSZ), using display boxes set up at all launch sites in the MSZ on both the Oregon and Washington sides of the Columbia River.

Through these and other activities, significant improvements have been realized in State and local governments' capabilities to communicate with the public in the event of a chemical agent accident. In summary, a strong and cooperative public information program exists at each site with the ability to reduce the public's risk from an accident.

If you have any questions or need additional information, please have a member of your staff contact FEMA's Office of Congressional and Legislative Affairs at (202) 646-4500.

Sincerely,



Dennis H. Kwiatkowski
Deputy Associate Director for Preparedness,
Training, and Exercises

Enclosures

ACRONYMS

A&N	Alert and Notification
ACT FAST	Agent Characteristics and Toxicity/First Aid and Special Treatment
ADP	Automated Data Processing
AEMA	Alabama Emergency Management Agency
ANAD	Anniston Army Depot
APG	Aberdeen Proving Ground
BGAD	Blue Grass Army Depot
CA	Cooperative Agreement
CAIRA	Chemical Accident or Incident Response and Assistance
CCA	Comprehensive Cooperative Agreement
ChemAware	CSEPP Chemical Awareness
CSEPP	Chemical Stockpile Emergency Preparedness Program
CY	Calendar Year
DA	Department of the Army
DCX	Direction and Control Exercise
EBS	Emergency Broadcast System
EIS	Emergency Information System
EMA	Emergency Management Agency
EMIS	Emergency Management Information System
EOC	Emergency Operations Center
FEMA	Federal Emergency Management Agency
FEMIS	Federal Emergency Management Information System
FSX	Full-Scale Exercise
FY	Fiscal Year
GAO	General Accounting Office
IBIS	Integrated Baseline Information System
IEM	Innovative Emergency Management Company
IRZ	Immediate Response Zone
JIC	Joint Information Center
MHz	Megahertz
MOU	Memorandum of Understanding
MSZ	Marine Safety Zone

NAWAS	National Warning System
NECA	Newport Chemical Activity
NOAA	National Oceanic and Atmospheric Administration
PA	Public Affairs
PAO	Public Affairs Officer
PAZ	Protective Action Zone
PBA	Pine Bluff Arsenal
PI	Public Information
PPA	Performance Partnership Agreement
PPE	Personal Protective Equipment
RFP	Request for Proposal
SRFX	Service Response Force Exercise
TAR	Tone Alert Radio
TDD	Teletype Device for the Deaf
TEAD	Tooele Army Depot
TTX	TableTop Exercise
UHF	Ultra High Frequency
UMDA	Umatilla Depot Activity
VHF	Very High Frequency

**ABERDEEN PROVING GROUND
Summary of Capability Improvements**

Functional Area	1988 Status	July 1995 Status
A & N System	Limited Civil Defense sirens, EBS, and route alerting.	Siren procurement and installation delayed due to contractor/vendor disputes. The MD General Services will either issue another Request for Quotation or proceed with a sole source contract with the only vendor to pass the spec. demonstration. Funds for TARS have been allocated to the State/Primary IRZ county. Procurement will take place upon issuance of specifications for the radios. CSEPP dedicated telephone system is installed and tested daily.
Emergency Operations Center	Existing EOCs with extensive communications capabilities for IRZ counties, but not in compliance with current CSEPP standards.	Bidding for Harford Co. EOC expansion scheduled for completion 9/30/95; construction scheduled to begin spring '96; completion anticipated in 1997.

ABERDEEN PROVING GROUND
Summary of Capability Improvements (cont.)

Functional Area	1988 Status	July 1995 Status
Joint Information Center	No JIC	JIC site designated at the Chesapeake Club in Aberdeen area of APG. Determined need for near-site media center. Exercised in 4/95 exercise. Funding recently allocated for procurement of additional equipment to outfit JIC.
Plans and Procedures	No chemical warfare agent-specific plans; general emergency plans only; no implementing procedures.	CSEPP-specific plans and implementing procedures developed for State and all IRZ/PAZ counties.
Communications Systems	Interjurisdictional communications lacking; extensive communications within individual counties.	Phone system operational linking installation, State, IRZ/PAZ county EOCs. Dedicated non-public switched telephones operational and tested in 4/94 exercise. Backup radio alerting system in planning phase.
Automation	No capabilities.	Harford County has replaced EIS with Softrisk and operational EMIS remote. EMIS remotes are installed and operational in IRZ and PAZ counties and the State.

ABERDEEN PROVING GROUND
Summary of Capability Improvements (Cont.)

285

Functional Area	1988 Status	July 1995 Status
Training	No training for response to chemical agent releases; all-hazards training only.	CSEPP-related training completed by 3,212 enrollees as of 7/95.
Exercises	No exercises conducted relating to chemical weapons accident at APG.	TRX completed 9/93; DCX in 11/93 and 4/95; FSX in 4/94. Next exercise -- 4/96.
Public Education	No CSEPP-specific public education or emergency public information program.	Public Affairs Plan in use. Annual calendars being produced and issued to the local population, annual protective action information to IRZ/PAZ citizens; procedures for disseminating protective action recommendations in an emergency developed by Harford Co.

ANNISTON ARMY DEPOT
Summary of Capability Improvements

Functional Area	1988 Status	July 1995 Status
A & N System	EBS with non-CSEPP-qualifying tone alert radios in selected institutions.	Siren system operational 9/93; 41 in IRZ, 2 in PAZ, additional 6 to be installed. Second propagation study requested. Sirens used to warn citizens of 3/94 tornado.
Emergency Operations Center	IRZ EOCs not in compliance with CSEPP standards; inadequate communications links with Army installation.	Calhoun County and Talladega County EOCs in operation since 3/94 and 6/94, respectively. Office space was funded in the PAZ counties of Cleburne, Clay and St. Clair in 1/94. All PAZ offices operational.
Joint Information Center	No JIC.	Ft. McClellan designated as JIC location in 7/94. Will remain site upon Nat. Guard guarantee of available space.
Plans and Procedures	Calhoun County had draft evacuation plan geared to chemical disaster. Plan did not meet CSEPP guidance.	CSEPP plans and implementing procedures developed for State, both IRZ counties and all PAZ counties.

ANNISTON ARMY DEPOT
Summary of Capability Improvements (cont.)

287

Functional Area	1988 Status	July 1995 Status
Communications Systems	Installation and IRZ county EOC linked by commercial telephone with NAWAS backup for one county.	Dedicated phone system operational linking installation, State, IRZ/PAZ counties. Statewide EM UHF radio system operational. \$16.1 million funding approved for 800 MHz communication system.
Automation	No capabilities at county level.	IBS operational. Local Area Network within AEMA operational. Local Area Networks within each CSEPP county completed. Interface between EMIS at ANAD and the CSEPP counties established. Calhoun County EMIS operational.
Training	No CSEPP-specific training; all-hazards training only.	CSEPP-related training completed by 3,097 enrollees as of 7/95.
Exercises	No exercises conducted relating to chemical weapons accident at ANAD.	TTX completed 10/92; DCX in 3/93 (on-post only), 4/93 (off-post only), and 4/95; FSX in 4/94. Next exercise -- 3/96.

ANNISTON ARMY DEPOT
Summary of Capability Improvements (Cont.)

Functional Area	1988 Status	July 1995 Status
Public Education	No CSEPP-specific public education or emergency public information program.	2 IRZ and all PAZ counties have prescribed protective action recommendations. CSEPP calendars published in CY 95 and budgeted for CY 96.

BLUE GRASS ARMY DEPOT
Summary of Capability Improvements

289

Functional Area	1988 Status	July 1995 Status
A & N System	EBS, weather alert radio, route alerting, and sirens on northern perimeter of Army installation.	Began installation 2/94; installation completed 9/94; operational 10/94; IRZ - 18, PAZ - 2; PAZ counties rely on EBS/NOAA, supplemented by route altering and community call-down network. TARS contract signed 5/94; installation to begin 9/95; estimate operational 6 - 12 months.
Emergency Operations Center	EOC inadequate in space and equipment; not in compliance with CSEPP standards.	EOC completed in 8/94. Design for alternate EOC in Berea completed in 6/94; funding awarded 8/95; bids to open 9/95; expected completion mid-96.
Joint Information Center	No JIC.	Permanent JIC moved to 501 Keeneland Drive, Richmond. Alternative site to be in Berea but no bldg. selected.
Plans and Procedures	No chemical agent-specific plans or implementing procedures, although general emergency plan existed.	Draft CSEPP-specific plans and implementing procedures developed for IRZ and all PAZ counties. State plans/ implementing procedures finalized and published.

BLUE GRASS ARMY DEPOT
Summary of Capability Improvements (Cont.)

Functional Area	1988 Status	July 1995 Status
Communications Systems	Dedicated telephone line to installation EOC; other interjurisdictional links lacking.	Phone bids opened 7/94; Radio tested in 10/94 exercise. System operational 4/95.
Automation	No capabilities.	2 VAX 4400s installed in 7/93 (one in State, one in Madison Co.) with 55 pc/laptop work stations provided to state/IRZ/PAZ. Madison County currently running IBS 2.04; IEM automation analysis conducted 7/94.
Training	No CSEPP-specific training for response to chemical agent releases.	CSEPP-related training completed by 400 enrollees as of 7/95.
Exercises	No exercises conducted relating to chemical agent releases.	TTX completed 4/92; DCX in 4/93 and 10/94; FSX in 11/92. Exercise schedule for 10/95 postponed to 10/96.

BLUE GRASS ARMY DEPOT
Summary of Capability Improvements (Cont.)

Functional Area	1988 Status	July 1995 Status
Public Education	Public education materials limited to toxic chemical evacuation map in local telephone directory and information letter to parents of school children.	State-developed public affairs plan; protective action instructions annually disseminated to IRZ/PAZ residents via calendar/emergency information brochure; pre-scripted protective action recommendation messages prepared by Madison Co.; tone alert radio video produced by Madison Co. and aired on local cable access station; also outdoor A&N brochure and TARS brochure printed and distributed by Madison Co.; information briefing provided to schools/colleges, civic organizations and factories/businesses (1,922 participants since 4/94 -- 613 in civic groups, 1,251 students, 50 factory workers/employees.)

NEWPORT CHEMICAL ACTIVITY
Summary of Capability Improvements

292

Functional Area	1988 Status	July 1995 Status
A & N System	No off-post alerting system; Army installation plans to use EBS to issue messages to calm public, not to provide emergency information and instructions.	Siren system operational 10/94; 11 in IRZ, 5 additional sirens to be installed by 11/95. Contract for 4,000 TARS signed; installation to begin 10/95; completion expected 6/96.
Emergency Operations Center	Both IRZ counties have designated EOCs of questionable operational capability; neither complied with current CSEPP standards.	EOCs in operation since 10/92. Operational capability fully demonstrated in FSX '94 and DCX '95.
Joint Information Center	No JIC.	JIC located at National Guard Armory in Rockville, IN; MOU in place between IN and NGA; 75% of equipment purchased and stored at JIC. 25% arrives when NECA arrives at JIC (copiers). Newly approved JIC funding will automate JIC.
Plans and Procedures	No emergency operations plans exist for either IRZ county.	CSEPP-specific plans and implementing procedures developed for both states and all IRZ and PAZ counties.

NEWPORT CHEMICAL ACTIVITY
Summary of Capability Improvements (Cont.)

293

Functional Area	1988 Status	July 1995 Status
Communications Systems	Inadequate communications link with Army installation; inadequate interjurisdictional communications.	Dedicated phone system operational linking installation, Indiana, IRZ/PAZ counties. Telephone and radio systems tested in 6/95 exercise. 800 MHz radio system 100% operational in IRZ; PAZ and State connected with limited 800 MHz capabilities. Five commercial telephone hot lines between state EOCs and NECA, IRZ EOCs. NECA currently has bid out for a dedicated hot line with conferencing capability to all jurisdictions and states. IL does not have T.1 lines to NECA, commercial only and radio tested 8/95.
Automation	No capabilities.	New equipment for EMIS has been installed and is operational at IRZ and PAZ counties; Will be operational at State EOC within 6 months; FEMIS compatible in Indiana; Illinois ADP equipment to support FEMIS in by 10/95.

**NEWPORT CHEMICAL ACTIVITY
Summary of Capability Improvements (Cont.)**

Functional Area	1988 Status	July 1995 Status
Training	No training in response to chemical agent releases.	All first responders in IRZ and PAZ have received Chem-Aware/ACTFAST. All available CSEPP-related training completed. Follow on training accomplished as applicable. CSEPP-related training completed by 931 enrollees as of 7/95.
Exercises	No exercises conducted relating to chemical weapons accident at NCA.	TTX completed 12/91; DCX in 2/92, 6/93 and 6/95; FSX in 6/94. Next exercise -- FSX 6/96.
Public Education	No CSEPP-specific public education or emergency public information program.	Indiana protective action information distributed to the public at lease annually; IRZ and PAZ counties have pre-scripted protective action recommendation messages; Procedures for disseminating protective action recommendations are in place for both IRZ counties. IL has distributed new PI brochures and held 4 town meetings. IN beginning PI/PA effort to alert public regarding TARS and sirens.

PINE BLUFF ARSENAL
Summary of Capability Improvements

295

Functional Area	1988 Status	August 1995 Status
A & N System	Route alerting only.	38 sirens installed in IRZ (5 in Grant Co. - 33 in Jefferson Co.); No sirens in PAZ. Sirens tested weekly. TDD installed in Jefferson Co. 3,388 TARS on order.
Emergency Operations Center	Primary IRZ county EOC inadequate; county relies on ad hoc command posts.	Jefferson Co. EOC operational 9/92; Grant Co. EOC operational 6/93.
Joint Information Center	No JIC.	Jefferson Co. Courthouse is the currently designated JIC site but equipment not in place; Plans to move JIC to permanent location underway; JIC operational as of 5/94; Major coordination problems still exist.
Plans and Procedures	Primary IRZ county had emergency response plan for chemical warfare agent event; implementing procedures lacking.	CSEPP-specific plans and implementing procedures developed for State and IRZ/PAZ counties; Last plan update 7/95. Evacuation routes revised, published and distributed 7/95.

PINE BLUFF ARSENAL
Summary of Capability Improvements (Cont.)

296

Functional Area	1988 Status	July 1995 Status
Communications Systems	No dedicated CSEPP-specific interjurisdictional communications links. Primary IRZ county has mobile communications equipment to support ad hoc command post concept.	Dedicated radio system linking all IRZ and PAZ counties operational since 12/92 and tested monthly. Dedicated non-public switched telephone systems linking IRZ county EOCs, Installation and State operational since 5/92 and tested 3 times daily.
Automation	No capabilities at county level.	EIS Windows since 2/92; 18 work stations in State EOC. Will upgrade to FEMIS if its development problems are remedied. Genisys system used for information tracking; stand alone EMIS installed.
Training	Local emergency response personnel trained in agent effects recognition and use of military personal protective equipment; limited chemical agent-related medical training.	CSEPP-related training completed by 1,937 enrollees as of 7/95. 225 trained between 1/94 and 7/95.
Exercises	Annual joint exercises with Army installation; off-site involvement limited.	TTX completed 2/93; DCX in 6/93 and 2/95; FSX in 5/94; Next exercise -- 2/96; State involved with quarterly CAIRA exercises.

PINE BLUFF ARSENAL
Summary of Capability Improvements (cont.)

Functional Area	1988 Status	July 1995 Status
Public Education	No CSEPP-specific public education or emergency public information programs.	State public information plan developed. Both IRZ and several PAZ counties have pre-scripted protective action recommendation messages and are developing procedures for disseminating protective action recommendations during an emergency. 17 minute siren video completed 7/95.

PUEBLO CHEMICAL ACTIVITY
Summary of Capability Improvements

Functional Area	1988 Status	July 1995 Status
A & N System	No siren capability; A&N limited to EBS and route alerting; all-hazards tome alert radios for schools and hospitals.	RFP initiated 3/94; 9 to be installed in IRZ, 4 in PAZ. RFP for TARS initiated in 10/94. Reissued summer '95.
Emergency Operations Center	Generally adequate EOC facility but not in compliance with CSEPP standards; no dedicated communications link with installation.	EOC in operation since 6/91.
Joint Information Center	No JIC.	Temporary JIC set-up at Pueblo Co. EOC; Permanent site selected at University of Southern Colorado in Pueblo. Plan in 4th revision; Funding proposals for equipment in progress.
Plans and Procedures	No CSEPP-specific plans or implementing procedures.	CSEPP-specific plans developed.

PUEBLO CHEMICAL ACTIVITY
Summary of Capability Improvements (Cont.)

299

Functional Area	1988 Status	July 1995 Status
Communications Systems	No dedicated communications link between county and Army installation; Adequate communication between county EOC and supporting agencies.	Installation and community are nodes on both dedicated telephone and radio systems; Link to State not yet installed.
Automation	No capabilities at county level.	IBIS System operational; 12 work stations installed since 10/92.
Training	No joint training with installation for response to chemical agent releases; all-hazards training only.	CSEPP-related training completed by 681 enrollees as of 7/95.
Exercises	No exercises conducted relating to chemical weapons accidents.	TRX completed 5/92; DCX in 7/92 and 8/93; FSX in 9/92 and 8/94. Next exercise -- 8/96.
Public Education	No CSEPP-specific public education or emergency public information program.	Plan prepared by county and State; Protective action information provided to public annually; Materials provided in Spanish; TDD capability for hearing impaired; Pre-scripted protective action recommendations and dissemination procedures developed; protective action recommendations coordinated with State and installation.

TOOELE ARMY DEPOT
Summary of Capability Improvements

Functional Area	1988 Status	July 1995 Status
A & N Systems	EBS and route alerting.	Installation of sirens completed 6/94. 20 in IRZ, 7 in Tooele Co. and 2 in Utah County. Siren system operational with weekly tests. Design completed for TARS. TARS funded, awaiting procurement and installation.
Emergency Operations Center	IRZ county had identified EOC facility but no equipment or procedures. PAZ county had functional EOC.	Tooele Co. EOC operational since 6/91. State EOC completed 9/94. Utah County and Salt Lake County EOC operational with approval of proposed ADP/Comm links.
Joint Information Center	JIC identified.	JIC operational since 6/91. The need for an alternative JIC, or to relocate off-post, is proposed for the Salt Lake Co. Fire Training Facility in Magna, UT.
Plans and Procedures	Minimal plans to respond to chemical agent event appended to IRZ and PAZ counties' emergency plans; did not meet current CSEPP guidance.	CSEPP-specific annexes to Emergency Operations Plans developed and in use. Continuing review and updating assure continued compliance with CSEPP Planning Guidance.

Summary of Capability Improvements (Cont.)

301

Functional Area	1988 Status	July 1995 Status
Communications Systems	Inadequate interjurisdictional communications capabilities; installation and IRZ county communicate via commercial telephone.	CSEPP included in State microwave communication system. Proposed upgrades and additional communications sites will eliminate single point of failure and potential for overload of existing system in a CSEPP event. Hotlines operational among State, installation, IRZ/PAZ and host counties. Radio system tested in 3/94 exercise.
Automation	No capability.	Tooele County installed IBS 1/94 with 20 work stations. Software problems encountered but IBS operational. State installed 25 IBS stations 1/94. FEMIS installation started 7/95.
Training	No training for response to chemical agent releases.	CSEPP-related training completed by 3,443 enrollees as of 7/95. PPE pilot course held 6/27/94.
Exercises	No exercises conducted relating to chemical agent releases.	SRFX held 6/91; TTX in 8/92; DCX in 10/92; FSX in 3/93 and 11/94.

TOOELE ARMY DEPOT
Summary of Capability Improvements (Cont.)

Functional Area	1988 Status	July 1995 Status
Public Education	No CSEPP-specific public education or emergency public information programs.	Annual protective action information provided to public in IRZ/PAZ. Pre-scripted protective action recommendations prepared and procedures for dissemination developed. Three functional evacuation exercises conducted in IRZ. Activity in individual communities used as public education opportunity.

UMATILLA DEPOT ACTIVITY
Summary of Capability Improvements

Functional Area	1988 Status	July 1995 Status
A & N System	Limited sirens in municipal areas; EBS and route alerting.	Siren system installed 5/95; 45 in IRZs, 14 in PAZ. RFP for Oregon TARS initiated in 12/93 for 10,000 units.
Emergency Operations Center	IRZ county EOC in Oregon inadequate and poorly equipped; Benton County, WA, EOC functional; none in compliance with CSEPP standards.	Morrow and Umatilla Counties' EOCs Operational since 10/93. Umatilla EOC inadequate; New EOC funded with construction to begin FY 96. Half of Benton Co. EOC award of \$1.5 million received; rest awarded pending approval of plans/designs. WA State Military Dept. constructing new Emer. Coord. Ctr. near Olympia. Construction completion expected 6/97. Will serve as WA State EOC during any CSEPP event and all CSEPP exercises.
Joint Information Center	Joint public information center designated; did not comply with current CSEPP standards.	JIC will be located in the Umatilla Co. EOC. Funding has been received. Equipment will be purchased in FY 96.

UMATILLA DEPOT ACTIVITY
Summary of Capability Improvements (Cont.)

Functional Area	1988 Status	July 1995 Status
Plans and Procedures	Chemical warfare agent-specific appendices to county emergency plans in draft form and under review.	Promulgated CSEPP-specific plans and draft implementing procedures for Oregon and both of its IRZ counties. CSEPP-specific plans drafted for WA state and Benton Co. but not yet promulgated. Implementing procedures in place for WA and Benton Co.
Communications Systems	Adequate communications between Umatilla County EOC and county emergency responders; dedicated telephone link between installation, local 911 location, and Oregon state police; other interjurisdictional links lacking.	UHF and VHF emergency radio systems integrated into 911 dispatch; System operational. HF and amateur radio systems operational. Dedicated telephone system awaiting installation. Regular phone system and "hotlines" functional. Phone system tested in 5/94 exercise. Private Branch Exchange installed and tested in WA in FY 91. CSEPP microwave background tested and operational 5/95. 800 MHz system expected operational 12/95.

UMATILLA DEPOT ACTIVITY
Summary of Capability Improvements (Cont.)

Functional Area	1988 Status	July 1995 Status
Automation	No capabilities.	Umatilla and Morrow counties and State have tested operational applications of IBS; Washington has installed and tested IBS 2.04 (14 work stations) in EMA and Benton Co. EMIS/FEMIS forklift upgrade awarded to both OR and WA FY 95.
Training	Medical and decontamination training provided by CDC to local hospital and EMS personnel.	CSEPP-related training completed by 2,720 enrollees as of 7/95.
Exercises	One limited joint exercise conducted between installation and Umatilla County.	TTX completed 6/92; DCX in 4/93; FSX in 3/94. WA only exercise 5/95. Next exercise -- 5/96.

UNATILLA DEPOT ACTIVITY
Summary of Capability Improvements (cont.)

Functional Area	1988 Status	July 1995 Status
Public Education	No public education materials prepared; draft pre-scripted EBS messages and notification procedures developed for emergency information.	Both States and all counties operate under State-developed public affairs plans; distribute protective action instruction materials to the public at least annually; and translate public education materials into Spanish. Pre-scripted messages developed and recorded and are located at the major radio station in the Benton Co. area. All materials in English and Spanish. Also, information distributed to boaters in Marine Safety Zone. Display boxes set up at all boat launch sites in MSZ on both OR and WA sides of Columbia River.



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